

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY.

I.—HERBART COMPARED WITH ENGLISH
PSYCHOLOGISTS AND WITH BENEKE.¹

By G. F. STOUT.

THE Faculty-psychology attempts to explain mental phenomena by referring them to certain relatively independent agencies, which are in truth only class-concepts invested with a fictitious reality. Herbart, on the contrary, attempts to base explanation on the conception of mind as a concrete system determining the interconnexion of its parts or aspects. The English Associational psychologists approach the subject in a manner similar in certain respects to the Herbartian. In the following critical comparison of Herbart with the English school, I shall refer mainly to Hume, Thomas Brown, Dugald Stewart and James Mill as typical examples of the distinctively English tendencies, avoiding mention of more modern thinkers. Of these I give most prominence to Brown, because he expressly discusses and formulates many ultimate principles which in other writers are more or less blindly presupposed. Dugald Stewart can hardly be called an Associationist in any special sense; he is important for our purpose mainly because of his theory of

¹ For an exposition of "The Herbartian Psychology," see Nos. 51, 52.

forgotten links in the train of ideas, by which he evaded the necessity of assuming subconscious or unconscious presentations. James Mill does not appear to me to be quite equal to Brown either in ability or achievement; he is specially interesting because of the uncompromising manner in which he applied the doctrine of Association as a key to every psychological problem.

The headings of the following sections as far as the ninth indicate topics which I have selected as affording opportunity for comparison between the Herbartian and the Associational standpoints, with the view of illustrating their fundamental differences. In the ninth and succeeding sections I treat of the German Beneke, who occupies in some respects an intermediate position, agreeing with English writers in their exclusive reliance on introspection as the ultimate source of psychological data, and with Herbart in his endeavour after complete mechanical explanation by means of hypotheses.

§ 1. *Distinction between Mechanical and Presented Connexion.*

A presentation may be considered in two points of view, either as having intrinsically a certain qualitative content, or, mechanically, as a condition of change in the total mental system of which it forms a part. It is in the former way, not in the latter, that presentations are usually regarded by all who are not students of psychology. From this point of view, attention is fixed either on resemblance and difference and other relations constitutive of the presented content, or on its relation to objects which it is in some way supposed to represent. In either case there will appear to be an entire absence of anything that can be called agency in the presentations considered. Variations in our idea of a thing do not alter the thing itself, and resemblance and difference are not in any sense modes of interaction. Most persons find it difficult to grasp the conception of a psychological mechanism, because they habitually regard presentations purely as having a presented content. Nevertheless, the mechanical standpoint is a legitimate one, provided that its nature and limitations are duly recognised. Presentations act and react on each other in manifold ways. They exclude each other from distinct consciousness, they reproduce each other, they support each other, and so forth. Now, the clear recognition of this distinction between presented and mechanical relation forms a leading feature in Herbart's psychology. He has embodied it, as we have seen, in his use of the terms presentative

activity and presented content, and he has made it the basis of his general method in dealing with psychological problems. He is perpetually inquiring what connexion of presentative activities corresponds either to a certain connexion of presented contents, or to feelings of pleasure and pain, or to desire.

Now, if we turn to English writers, we meet with traces, but traces only, of this distinction. Nowhere do we find a thorough and consistent application of it such as characterises the Herbartian system. The confusion of the two standpoints which pervades the first three books of Locke's *Essay* seriously impairs the value both of his psychology and of his metaphysics. Hume is comparatively free from similar confusion. His division of relations into natural and philosophical is an explicit recognition of the distinction in question. "The word relation," he says, "is commonly used in two senses considerably different from each other. Either for that quality by which two ideas are connected together in the imagination, and the one naturally introduces the other . . . or for that particular circumstance in which . . . we may think fit to compare them" (*Treatise on Human Nature*, pt. i., sect. 5). The former class he calls natural, the latter philosophical, relations. This distinction answers roughly to that between connexion of presentative activities and connexion of presented contents. But Hume's application of it was very different from Herbart's. It does not seem to have occurred to him that special forms of philosophical relations uniformly imply special forms of natural relation. So far as he attempts to exhibit the dependence of presented connexion on mechanical conditions, he does so only in order to draw an epistemological inference concerning the nature and import of the presented connexion. Thus he explains the apparent necessity of the causal relation by reference to the association of ideas purely for the purpose of showing that the appearance of necessity is illusory. On Herbartian principles, according to which psychological explanation has no bearing on logical validity, this procedure is entirely perverse and unjustifiable. Moreover, in spite of the clear line of demarcation which he draws between them, Hume sometimes substitutes a natural for a philosophical relation, as if it were the same thing. Thus he seems to consider a succession of presentations as identical with a presentation of succession.

We find also in Brown a serious attempt to separate mechanical from presented connexion. He distinguishes carefully between the mere sequence of mental states in

time and what he calls their virtual or seeming coexistence in a single state, in which the relation between them is apprehended. Mere sequence, as opposed to presented connexion, may be conditioned either by the order in which the organs of sense are stimulated, or by the "spontaneous" tendency of the mind to exist in certain states after existing in certain other states. In the latter case it is said to be due to Suggestion. Suggestion is of two kinds—simple and relative. "Of the feelings which arise without any distinct external cause . . . there are many which arise simply in succession in the floating imagery of our thought, without involving any notion of the relation of the preceding objects or feelings to each other. These . . . are what I have termed the phenomena of simple suggestion. But there is an extensive order of our feelings which involve this notion of relation, and which consist, indeed, in the mere perception of a relation of some sort. To these feelings of mere relation, as arising directly from the previous states of mind which suggest them, I have given the name of relative suggestions" (*Phil. of Hum. Mind*, Lect. 45). It will be seen from this quotation that both kinds of suggestion are mechanical processes. The difference between them lies in the fact that in simple suggestion the presented content of the subsequent state in no way includes the content of states which precede it, whereas in relative suggestion the subsequent state consists in the "mere perception of a relation of some sort" between the contents presented in the several states which precede and introduce it. The distinctive peculiarity of this view as compared with the Herbartian, is that it reduces all mechanical relation to simple and exclusive succession. Herbart, on the contrary, postulates the reciprocal interaction of mechanical factors in one and the same total state of consciousness. Brown's view makes it impossible for him to exhibit a uniform correspondence between definite variations in mechanical connexion and definite variations in the nature of the presented content. For mere succession does not admit of any variation except in the content of the successive presentations or in their relation of priority and subsequence. Brown regarded the ultimate unit of mechanical relation as a total "state of mind," and he is perpetually reminding his readers that the mind cannot be in two states at once. It was thus impossible for him to admit any kind of mechanical union as the immediate and simultaneous counterpart of the co-presentation of distinct contents.

Brown does, indeed, constantly speak of complex mental

states, and he endeavours, with great zeal and success, to analyse them into their components. Moreover, in one passage at least he seems to protest against the very doctrine which I have ascribed to him. In his thirty-ninth Lecture he assails the assumption or rather the disposition to assume, that the state of mind at one moment must always be so different from the state of mind at the moment preceding that one idea must necessarily fade as a new one arises. He declares, on the contrary, that a continued existence of our associated feelings is essential to all "continuity of design, and to every wide comparison of the relations of things, and to all complex emotion". These remarks of Brown, when they are closely examined, confirm rather than weaken my previous statement. They serve to exhibit in a marked manner the characteristic tendency, shared by him with the English school in general, to reduce all mechanical, as distinguished from presented, relation to mere exclusive succession. In the first place, it is significant that he should have thought it necessary to make a formal protest against the view that one idea must always pass out of existence as another one arises. He refers to his own opposing doctrine as if he considered it to some degree original, inasmuch as it expressed a "much neglected property" of the suggestive principle. The cause of this neglect is, in his opinion, the exclusive use of certain phrases. "We are so much accustomed to talk of the succession of our ideas, of the trains of our ideas, of the current of our thought, and to use so many other phrases of mere succession, to the exclusion of all notions of coexistence in speaking of the modifications of the principle of suggestion, that by the habitual use of these terms we are led to think of our ideas as consecutive only." There is no doubt that the tendency thus described pervades the work of nearly all English psychologists, and that it gives a peculiar character to their doctrine of Association. Brown chafed under the limitation thus imposed on scientific explanation, and, as we shall see, he made a skilful attempt to free himself from it. But he could only achieve a partial success, because the root of the evil lay deeper than he thought. It was not merely the misleading influence of certain familiar phrases which caused writers on the "philosophy of the human mind" to think of mental process mainly as consisting in a series of mental modifications following each other in "separate and exclusive succession like the moving figures of a continued train". The very attempt which he and others made to rid themselves of this prejudice serves only to disclose the hidden assumption which rendered it in-

evitable. To make this clear, we must examine the doctrine of mental complexity explicitly formulated by Brown, and more or less blindly presupposed by almost all other psychologists of the English school.

§ 2. *Brown's Doctrine of Mental Complexity.* Brown teaches clearly and emphatically that various modes of consciousness may coexist with each other as well as follow each other. But he always takes care to add that the coexistence is merely "virtual" or seeming, whereas the succession is assumed to be real. He cautions his readers against "the mistake of supposing that the most complex states of mind are not truly in their very essence as much one and indivisible as those which we term simple" (Lect. 45). "The complexity and seeming coexistence" are, in his view, "relative to our feeling only, not to their own absolute nature". We are aware on reflection of the virtual equivalence of one state of mind, which we therefore term complex, to a number of other states which we term simple. Now, whatever else Brown meant by this doctrine, the general scope and tendency of his work clearly show that he at least intended to deny mechanical coexistence involving reciprocal interaction. The coexistent complexity which he admitted was complexity of the presented content, not of the psychological mechanism. On reflective comparison of the content of one state of consciousness with the contents of other precedent states, we become aware that the latter are in a certain manner comprehended in the former. But the several states in which these contents are presented are, mechanically considered, ultimate and indecomposable units. Moreover, they are *ex hypothesi* total states of mind, and, therefore, cannot exist together in the same moment of time. Thus from the mechanical point of view there can be no such thing as coexistence or combination. Two mental states never unite in a third. They are only capable of being antecedents, on which a third follows having a content, seen on reflection to resemble them. "They do not involve or constitute; they merely give occasion to this third state in consequence of the peculiar susceptibilities of the mind itself, as formed by its divine Author, to be affected in this particular manner after being affected in those different manners which constitute the separate perceptions" (presentations), "as sensation itself, the primary feeling, was made to depend on some previous organic affection produced by an external object" (Lect. 33).

If we suppose a number of antecedent states to introduce another by a process resembling relative suggestion, but differing from it in the absence of any apparent equivalence between the content of the suggested state and the contents of those which suggest it, we have the phenomenon of mental chemistry, as it has been called. James Mill, to whom the credit of having discovered this process is commonly ascribed, describes it as follows: "Ideas, which have been so often conjoined that whenever one exists in the mind the others immediately exist along with it, seem to run into one another, to coalesce, as it were, and out of many to form one idea; which idea, however in reality complex, appears to be no less simple than any of those of which it is compounded" (*Analysis*, c. iii. § 8). I cannot say what was the exact meaning attached by Mill to the phrase "in reality complex". The whole scope of his work shows that he did not entertain the conception of mechanical coexistence in the Herbartian sense. Otherwise we might suppose him to intend a contrast between plurality of mechanical constituents and apparent simplicity of presented content. This interpretation being inadmissible, I can only treat this "coalescence" of ideas as a case of relative suggestion, distinguished from other cases by the circumstance that in it there is no discernible equivalence between the content of the suggested state and the contents of its antecedents.

§ 3. *Brown's substitution of the term Suggestion for Association.* The word Association is usually employed by English writers to denote the tendency of the mind to exist in certain states after existing in certain other states. Brown proposed to substitute the term Suggestion for Association, and he brought forward urgent reasons for this course, which place in a striking light the antithesis between the Herbartian and the Associational conception of the psychological mechanism. He objects to the word Association, on the ground that it implies a baseless preconception concerning the nature of the process by which mental states suggest each other. It implies, he says, the existence of some preformed tie on which the suggestion depends. As against this tacit assumption, he asserts the entire absence of evidence for the existence of any process of association preceding and conditioning the process of suggestion. He points out that there is no reason for assuming the operation of any law or general tendency of the mind which does not come into play in the very moment when one mental

state calls up another. Now, it seems to me that Brown was perfectly justified in taking up this position, which is also that of James Mill, who expressly states that by association of ideas he means nothing but the "order of occurrence". From the general point of view common to the English school, there certainly was not, and could not be, any evidence of a preformed mechanical union between two ideas, as distinguished from the regular sequence in which the one follows the other, or, to use James Mill's expression, "springs up" after the other. No such union could be observed at the moment of their contiguity. Nor was there, according to the Associationists, any trace of its operation between that moment and the time when it was supposed to manifest itself in the actual process of reproduction, or, as Brown calls it, suggestion. In the interval, the very elements supposed to be united were thought to have entirely passed out of existence. Nay, if we push to an extreme the reduction of all mechanical connexion to mere exclusive succession, one of them had ceased to exist before the other came into being. In fact, a great part of Mr. F. H. Bradley's argument, in bk. ii. c. 1 of his *Logic*, might be urged in support of Brown's contention. Now, if we turn to Herbert's Exposition, we shall find that the formation of a mechanical union in the moment of co-presentation is no mere gratuitous assumption, which can be dropped without material injury to the rest of the system. He treats the mind, even in its mechanical aspect, not as a series of mutually exclusive states, but as a single continuous whole determining the simultaneous and successive relations of its parts or aspects. The mechanical factors which co-operate in any one state persist *quod* mechanical factors through all other states. Even when a content entirely ceases to be presented in consciousness, the corresponding presentative activity is still operative in so far as it excludes from consciousness other presentative activity. The mechanical union which attends co-presentation is, therefore, operative from the moment in which it takes place and ever afterwards, as determining the mode and degree in which the connected presentations suffer and produce arrest, and also as a condition of pleasurable or painful feeling and of desire. What Brown calls suggestion, *i.e.*, reproduction in distinct consciousness, is only one mode among others in which the connexion of presentations manifests itself.

§ 4. *Unconscious and Subconscious States of Mind.* Herbert's

view of the psychological mechanism as a continuous system determining the relations of its parts according to fundamental principles of interconnexion, carries with it one necessary consequence which is alien to English modes of thought. It involves the assumption of mental modifications which are not objects of consciousness, and even of mental modifications which are not in consciousness at all. Herbart is compelled to posit the persistence of presentative activities even when the presented content is not attended to, *i.e.*, when it does not possess that peculiar salience in consciousness which results from the apperceptive process. He is moreover compelled, as a consequence of the peculiar mode in which he conceived this systematic connexion of mental processes, to posit not only presentations in all stages of obscurity, but presentative activities which are in the strictest sense unconscious. This need, arising from the endeavour after complete systematic explanation, was not as a rule felt by English psychologists. Yet they at times were confronted with phenomena which seem most naturally explicable by some hypothesis of the kind. The mode in which they dealt with such questions is highly interesting as throwing light on their general psychological position. It is characteristic of the English school that the problem should have presented itself to them mainly in connexion with the difficulty of accounting for the apparent omission of links in a successive series. Hartley was the first to give prominence to the question by his doctrine of the "transitions of voluntary actions into automatic ones". He laid stress on the fact that certain actions, such as walking or playing on a musical instrument, which at first require a series of volitions, come to be performed after long practice without the "intervention of the idea or state of mind called will," purely in virtue of the predisposition of the physiological mechanism. It never occurs to him to assume the existence of unconscious or subconscious mental states. He contents himself, in this instance no doubt rightly, with the view that each movement comes to be so intimately associated with preceding movements and sensations, that it immediately follows on these, without the interposition of any mental state corresponding to the separate volitions, which were at first indispensable links in the chain of events. Dugald Stewart criticises this view, and compares Hartley's procedure to that of a "man who should maintain that, although a body projected with a moderate velocity is seen to pass through all the intermediate spaces in moving from one place to another, yet

we are not entitled to conclude that this happens when the body moves so quickly as to be invisible to the eye" (*Elements*, c. ii.). The explanation which he himself offers is that "the mind may think and will without attending to its thoughts and volitions so as afterwards to recollect them". This happens, according to him, when a series of movements involving volition follow each other with such rapidity that the acts of volition are too momentary to leave any impression on the memory. He also extends the same explanation to another class of cases, which possess greater psychological interest, those cases in which men come to a conclusion apparently without being aware of the grounds on which their belief is based. When we are convinced that a proposition is true without being able to state immediately to others, or to ourselves, what the reasons are which convince us, then, according to Dugald Stewart, a "process of thought has passed through the mind, but has passed through it so quickly that we cannot without difficulty arrest our ideas in their logical succession. It is in this way possible to investigate even truths which are pretty remote by an intellectual process which, as soon as it is finished, vanishes almost entirely from the memory."

I call attention to this doctrine solely for the sake of the illustration which it affords of the restriction of mechanical connexion to exclusive succession of states of consciousness. The problem as it presented itself to Dugald Stewart arose from the apparent omission of links in a train of mental states following each other in time. It was only for this reason that he was enabled to escape the difficulty by a supposed lapse of memory. If he had seen himself compelled to explain the absence of necessary factors in a single total state of consciousness, his hypothesis would have at once appeared untenable. It would be easy to show that all instances of a conviction formed without explicit consciousness of the reasons on which it depends, really come under this head.

§ 5. *Secondary Laws of Association.* The doctrine of Association, as commonly stated, leaves unexplained why one reproduction takes place rather than another when, according to the ordinary laws of contiguity, similarity, &c., many alternative presentations have an equal claim to "spring up". This difficulty was more or less neglected by associational writers until Brown called attention to it and made a most able attempt to remove it, which only failed of success because the defect lay rather in the general

standpoint of the school than in the special application of their fundamental principles. Brown states the question as follows (Lect. 37):—"If there be various relations, according to which the parts of our trains of thought may succeed each other—if the sight of a picture, for example, can recall to me the person whom it resembles, the artist who painted it, the friend who presented it to me, the room in which it formerly was hung, the series of portraits of which it formed a part, and perhaps many circumstances that have been accidentally connected with it—why does it suggest one of these conceptions rather than others?" He attempts to solve the problem thus formulated by introducing a number of "secondary laws of suggestion" determining the special operation of the primary laws at different times and in different persons. The first circumstance mentioned by him is the length of time during which the associate presentations continued, when the one succeeded the other or "virtually" coexisted with it. He does not, however, tell us how the "length of time" operates. Indeed, he is precluded from raising this question by his denial of any process of association prior to and conditioning reproduction. Herbart's principles carry us farther. According to him, reproduction is not merely a relation between one simple state of mind as antecedent in time and another simple state as subsequent. He teaches that the reproduction of any presentation may be due to the simultaneous co-operation of an indefinite number of other presentations in all stages of distinctness. Hence the longer a presentation has at any time continued in distinct consciousness the more likely it is to be reproduced, because its direct and indirect connexions with other mental elements become more numerous and complex.

"In the second place," says Brown, "the parts of a train appear to be more closely and firmly associated as the original feelings have been more lively." This law would seem partly to answer to the Herbartian principle, according to which the tendency of one presentation to reproduce another is, *ceteris paribus*, in direct proportion to the intensity of the former at the time of their union. Brown, however, seems to refer the influence of attention to this law, together with the first law stated above. "That strong feeling of interest and curiosity which we call attention not only leads us to dwell longer on the consideration of certain objects, but also gives more vivacity to the objects on which we dwell, and in both these ways tends to fix them more strongly in the mind." But, according to Herbart, this

"strong feeling of interest and curiosity" is itself referable to the complex interaction of presentations. It has for its mechanical condition the process of apperception, involving the incorporation of the group which is apperceived with a more stable and comprehensive presentation-mass, of which it becomes an integral part. It is for this reason that attention founded on interest tends to fix its objects more strongly in the mind, and thus to favour their reproduction in distinct consciousness. The process of "fixing" is the multiplication of the connexions between one presentation and others, which therefore tend to reproduce and maintain it in its original distinctness, when and so far as they are themselves reproduced.

Brown notes, in the third place, that "the parts of any train are more readily suggested in proportion as they have been more frequently renewed". To comment on this from Herbart's standpoint would be simply to repeat what has been already said in regard to the first law. According to Brown's fifth law, "our successive feelings are associated more closely as each has coexisted less with other feelings. The song which we have never heard but from one person can scarcely be heard again by us without recalling that person to our memory; but there is obviously much less chance of this particular suggestion if we have heard the same air and words frequently sung by others". This, it will be seen, follows immediately from the Herbartian doctrine of the curtailment of series. In his other laws, Brown takes into account variations in the strength of the tendency to suggestion depending on the recency of the original feelings, on differences of original constitution in various persons, on differences of temporary emotion, on changes in the state of body, and on general tendencies arising from custom to special kinds of suggestion. From Herbart's standpoint, all these conditions, so far as they are purely psychological, are in the main reducible to one—the controlling influence on the flow of ideas of dominant apperceptive masses varying in different persons and at different times. Temporary emotion he would regard as a condition only because it implies certain mechanical relations between components of an apperceptive group. Temporary or permanent states of body can only be taken into account by the psychologist in so far as they occasion organic sensations which combine with certain presentation-masses, and therefore tend to recall and retain these masses to the exclusion of others. The effect of recency is in part resolvable into the effect of the varying degrees of

remoteness of completely obscured presentations from the threshold of consciousness.

The main point which requires to be emphasised is the sporadic character of Brown's laws as compared with the systematic explanation of Herbart. Brown and his followers are compelled to supplement the primary laws of association by a number of collateral considerations, which have no essential connexion either with these primary laws or with each other. Herbart, on the other hand, bases his explanation on the fundamental relations of union and arrest, which form the mechanical counterpart of co-presentation. Moreover, even these processes are reciprocally interdependent, the one being meaningless apart from the other. Herbart attempts, with clear consciousness of his object, to base all explanation of particular psychological phenomena on the conception of the mind as a single mechanical system, determining the connexion of its constituent parts. The Associational psychologists worked to some extent in the same direction. But they did not clearly know what they were aiming at, and therefore, in spite of their unsurpassed power of fine observation, their ingenuity and acuteness, and their admirable caution, they failed to give an explanation of psychological phenomena so penetrating and complete as the Herbartian.

§ 6. "*The Objects of our Thought when we employ General Terms.*" Dugald Stewart says that there are two ways in which general truths may be obtained—"either by fixing the attention on one individual in such a manner that our reasoning may involve no circumstance but those which are common to the whole genus, or (laying aside entirely the consideration of things) by means of the general terms which language supplies". We may take this statement as expressing substantially the doctrine prevalent among English psychologists since the time of Hobbes. For the present purpose we shall consider the first of the alternatives named by Dugald Stewart. Berkeley and Hume have shown with great clearness that an idea which is particular in its existence may yet have a general signification. Their favourite illustration is drawn from the procedure of geometers, who even in the most general reasonings direct their attention to a particular diagram. The generalisation is said to consist in the exclusive consideration of those circumstances in which the given individual resembles others of the same genus, so that no part of the reasoning has reference to circumstances other than these. Admit-

ting this to be a fairly adequate account of what takes place in many instances, so far as this can be directly observed, the very obvious question arises, how it is that certain circumstances come to be thus considered to the exclusion of others. If we turn for explanation to English Nominalists, we find the process accounted for either by a "faculty of abstraction," as in Dugald Stewart, or by reference to the use of general terms, as in Hume. As we are not here discussing the faculty-psychology, we may leave the former answer unnoticed. The efficacy of general terms in fixing the attention exclusively on certain aspects of a given presentation is explained by Hume as follows: "The same word is supposed to have been frequently applied to other individuals that are different in many respects from that idea, which is immediately present to the mind; the word not being able to revive the idea of all these individuals . . . only touches the soul, if I may be allowed so to speak, and revives that custom which we have acquired by surveying them". "For this is one of the most extraordinary circumstances in the present affair, that after the mind has produced an individual idea, upon which we reason, the attendant custom, revived by the general or abstract term, readily suggests any other individual, if by chance we form any reasoning which agrees not with it. Thus, should we mention the word triangle, and form the idea of a particular equilateral one to correspond to it, and should we afterwards assert *that the three angles of a triangle are equal to each other*, the other individuals of a scalenum and isosceles, which we overlooked at first, immediately crowd in upon us, and make us perceive the falsehood of this proposition, though it be true with relation to that idea which we had formed" (*Treatise*, vol. i., p. 329). Thus, according to Hume the general term tends to suggest all the particular ideas with which it has been associated. But it has been associated with a number of ideas which resemble each other in certain respects. When, therefore, it is presented in conjunction with one of these, it tends to reinstate the others in consciousness. This tendency may remain a mere tendency so long as the course of thought is exclusively determined by those features in the given idea which it possesses in common with others coming under the same appellation. But should any incidental features distinctive of the given particular idea begin to excite trains of suggestion, then the general term immediately calls up other particular ideas which do not possess these special features. In this way the irrelevant suggestions are at once suppressed, and the attention is restrained

from wandering. This explanation is no doubt correct so far as it goes; but it obviously does not go far enough; in fact, it only serves to raise the old question in a different form. Why does the tendency of the general term to call up other ideas become actualised so opportunely? This is, as Hume says, an "extraordinary circumstance". Again, why is the general term itself persistently attended to, so that its suggestions overpower all others? In order to answer these questions, we must either have recourse to a "faculty of abstraction" or to a more penetrating mechanical explanation than is yielded by association of ideas, as ordinarily understood. This thoroughgoing mechanical explanation Herbart attempts to supply. It is, in his view, the controlling influence of an apperceptive group which gives to certain aspects of a particular presentation special distinctness and mechanical predominance. The nature and origin of the apperceptive groups which function in general reasoning are described by him under the heading of psychological concept. It must be remembered that the apperceptive group, as such, is not in itself apperceived: neither it nor its components are observed, noted, or in the ordinary sense of the word perceived. They are in consciousness, but they are not objects of consciousness. They may, indeed, become so by interaction with a new apperceptive group. Yet even in this case a multitude of elements which are mechanically distinct must remain, as presented contents, undistinguished. For an apperceptive mass only gives salience to certain features in the apperceived group, obscuring others. It follows that the mechanical process by which a particular idea comes to possess a general signification cannot be directly observed. Thus English thinkers like Berkeley and Hume could not possibly hit on an explanation resembling Herbart's, because of their avoidance of hypothesis and exclusive reliance on the direct, or apparently direct, deliverances of introspection.

James Mill's view on the subject resembles Herbart's up to a certain point. He regards the object of a general term as a complex idea composed of a great number of particular ideas resembling each other in certain respects. He adds that each of these component particulars is indistinct, so that the real nature of the complex can only be discovered by an effort of reflective analysis. The analogy to the Herbartian view, however, ends at this point. Mill fails to notice or explain the mechanical predominance of the homogeneous elements or aspects of the complex over the divergent details. He fails, therefore, to explain the very

point which chiefly requires explanation. This could not be otherwise, because he proceeds on the tacit assumption that the complexity of a complex idea is purely complexity of presented contents, not of interacting factors in a mechanical whole.

§ 7. *Associationists never quite free from Fallacies of Faculty-psychology.* In the foregoing sections I have endeavoured to illustrate by a number of typical cases, which might be indefinitely multiplied, the characteristic distinction between the Herbartian standpoint and that of the English Associationists. The nature of their fundamental divergence is now, I hope, clear. Herbart views all mental modifications in their mechanical aspect as interconnected parts or phases of a single concrete system. English writers, on the other hand, show a strong tendency to regard particular states of consciousness as relatively independent psychological units interconnected only by a certain order of sequence in time. The reason of this distinction is to be found in the tendency of English psychologists to avoid all hypotheses which appeared to go beyond the most simple and obvious generalisations from the immediate deliverances of introspection. Now, as Herbart has pointed out, mental processes are at once so complex and transient that we can by introspection obtain only partial glimpses of them, in which are revealed marked features common to a multitude of particular states, while specialising details remain hidden in obscurity. Hence arises a kind of involuntary generalisation. Mental phenomena present themselves *prima facie* to even the most careful observer, not as parts, phases or aspects of a single continuous whole, but as genera and species in a system of classification. In fact the several phenomena revealed to introspection are mere abstractions, and it is impossible to exhibit the concrete whole in and through which they have being without having recourse to hypotheses involving the operation of subconscious or unconscious elements, and therefore transcending what are taken to be the direct deliverances of introspection. To the English psychologists who were debarred from adopting this method, there were only two courses open. One was to treat class-concepts of mental occurrences as if they were real agencies producing these occurrences. This is faculty-psychology of the worst kind. It was impossible from the nature of their general position that the English psychologists should wholly escape this fallacy. But as a rule its positive influence is in their case confined to language only. Their

caution and good sense save them from attempting on this basis pretentious explanations which explain nothing, such as we find in Wolff. On the other hand, this mode of approaching psychological problems exercised on them a disastrous negative influence, inasmuch as it frequently caused them to stop short prematurely in their investigations. So soon as they had referred a certain class of processes to a distinct faculty, they considered further inquiry as worse than useless. This characteristic is most prominently exemplified in Locke, Reid and Stewart. Compare, for instance, Herbart's searching examination of the nature of inner perception with Locke's easy assumption of a distinct faculty of reflection. Hartley and James Mill are almost wholly free from the tendency referred to, not altogether on the ground of deeper insight, but in part from the want of it. They were so preoccupied with "Association of Ideas" as a principle of explanation that they sometimes slurred over or failed to notice phenomena not explicable by that principle. For example, James Mill does not assume a faculty of abstraction. But, as we have seen, he fails to face the difficulties which seem at first sight to require this assumption. He denies that there is a separate faculty of "consciousness," *i.e.*, of introspection. But he does not discuss the nature of introspection except in a vague and general manner. Consciousness, he says, is a "generic mark" for ideas, thoughts, beliefs and other modes of "feeling". He does not, however, tell us why we apply this mark at one time and not at another; nor does he inquire what peculiar attitude of mind is involved in the act of applying it (*Analysis*, ch. v.). Similar criticism is suggested by his account of the consciousness of self as compared with Herbart's elaborate discussion of the same subject.

In general, it was through the attempt to minimise the number of distinct faculties that the Associational psychology arose. Association of ideas was commonly regarded as one faculty among others, possessing however the recommendation of being the most comprehensive. This point may be strikingly illustrated by quotations from Brown. He introduces his reduction of all the "intellectual states of mind" to the two classes of simple and relative suggestions, in the following manner: "The mind has truly as many susceptibilities as in various circumstances it can have different feelings. But still when we arrange these different phenomena in certain classes, it is an error in classification to give a new name to varieties that can be referred

to other parts of the division already made. . . . It is with the intellectual phenomena that we are at present concerned; and this order I would arrange under two generic capacities, that appear to me to comprehend or exhaust the phenomena of the order." This is the mode in which Brown habitually expresses himself. He always speaks as if the aim of the "Philosophy of Mind" were to produce a comprehensive scheme of classification, with the fewest possible divisions and subdivisions. Thus though he did his utmost to avoid undue multiplication of faculties, yet he continued to regard mental states as if they were relatively independent individuals to be compared and classified, rather than as abstractions having existence only in the systematic totality of the individual mind.

§ 8. *Abstract and Concrete Unity of the Mind.* Brown did indeed hold, like most other English thinkers, the unity and persistent identity of the "spiritual principle". But this unity and identity was for him a mere abstraction falsely regarded as a reality. So far as the conception influences his psychology, the influence is sinister. His favourite argument for psychological atomism, which characterises the English school generally though it receives from him its most clear and explicit expression, is derived from the unity and simplicity of the mind. The mind, he asserts, cannot exist in two states at once, because it is an indivisible substance. Therefore he is compelled to reduce all psychological process to bare succession in time. The unity of the mind is for him rather an abstract unity excluding difference, than a concrete unity including and connecting differences. Herbart also, *quod* metaphysician, regarded the soul as a unity excluding difference. He even held this doctrine in a more rigid and uncompromising form than any other philosopher. But for this very reason he was forced practically to neglect it, in his treatment of psychology. He himself was unaware of this. He even maintained the contrary. Nevertheless the fact remains, that in his psychological investigation the abstract metaphysical unity of the soul becomes transformed into a concrete unity pervading and connecting the manifold variety of individual experience. With Brown the case was otherwise. He did not push his view of the simplicity of the "spiritual substance" to such an extreme as to exclude the possibility of successive modification and of "virtual or seeming" coexistence. All other modes of difference he held to be inadmissible, but these he allows without misgiving. Thus his metaphysical

doctrine of mental unity does not entirely exclude the variety of actual experience. He was not compelled wholly to transform or discard it in treating psychological problems. Hence it is perpetually present in his writings, hampering and restricting him in manifold ways.

Brown's general position in this respect was inherited from Locke, and it is shared more or less by most of Locke's English followers. Locke, starting with a plurality of unrelated ideas, regards the mind as an agency which pieces them together so as to form a connected experience. Thus he separates unity and difference, so that each becomes an impossible abstraction, at the same time regarding these abstractions as in some sort realities, one of which acts on the other. The mind is represented by him as compounding, separating and enlarging the material supplied by sensation and reflection. He was, in consequence of this view, powerless to reject innate faculties as he rejected innate ideas. The simple ideas, as derived from inner or outer sensation, were essentially disconnected. The mind combined and arranged them, therefore, in virtue of its inherent powers. In truth, the doctrine of simple ideas almost inevitably carries with it the faculty-psychology in some shape. The only means of entirely escaping it is to change altogether that view of the unity of the mind on which Locke's theory rests. For the conception of an agency combining simple ideas must be substituted the denial that there is such a thing as a simple idea. This step was never taken by any of the English thinkers. Brown partially disguised rather than overcame the difficulty by his doctrine of relative suggestion. His view of successive mental states as indivisible and mutually exclusive mechanical units is open to all the objections which attach to Locke's position.

§ 9. *Transition to Beneke.* For Herbart as well as for Locke and his successors the unity of the mind was primarily an hypostasised abstraction of unity. But the German thinker differs from the English both in the manner in which he arrived at this conception, and in the psychological consequences which he deduced from it. It was through exclusive reliance on the immediate evidence of internal perception that the countrymen of Bacon fell into this error. With Herbart, on the contrary, it was an integral part of an elaborate and highly speculative system of metaphysics. He was led by a process of abstract reasoning to maintain the simplicity of the soul in so ab-

solute a sense that he was compelled to exclude from its intrinsic nature all variety and difference whatever, including even successive modification in time. Thus he cannot, like Locke, treat the mind as essentially a combining agency, or, like Brown, as a substance passing through a series of states. He is therefore unable to introduce into his psychology the metaphysical conception of the unity of the soul, except by transforming it, however inconsistently, into a conception of synthetic unity, which takes a two-fold form in its application to presented content and to mechanical interaction respectively. On the side of the presented content it is the unity of consciousness; considered from the point of view of the interaction of presentative activities, it is the systematic unity of the psychological mechanism. It might, however, be expected that Herbart's metaphysical presuppositions would modify the form in which this systematic unity was conceived, and modify it in such a manner that many of his psychological tenets must appear baseless and arbitrary to those who do not share his speculative opinions. It is, therefore, highly important and interesting to inquire how far the special modes of psychological interaction recognised by him are really necessary to the thorough explanation of mental processes as forming a concrete system, and how far they are referable merely to his peculiar doctrine concerning the nature of the soul. For this reason the work of Beneke possesses a special interest. Beneke, like the English Associationists, bases, or professes to base, his psychology on introspection only, in entire independence of metaphysical preconceptions. But he differs from them and agrees with Herbart in his conception of the scope and aim of psychology. He is not merely discontented with the undue multiplication of faculties; he holds that the very conception of a faculty in the ordinary sense of the word rests on a false view of the function of the psychologist, as consisting essentially in description and classification. This view, according to him, works mischief in a two-fold way. In the first place, the reduction of a plurality of mental phenomena under a single concept comes to be regarded as equivalent to the reference of these phenomena to a single cause, named a power, susceptibility or faculty. In the second place, psychologists, being restricted to observation of the processes of their own relatively mature consciousness, are debarred from inquiring how these processes have been evolved in the course of mental development. Thus powers which were really the results of a long evolution were regarded by them as present from the first in the form

of innate faculties. Beneke, partly under the influence of Herbart, though in a manner peculiar to himself, substitutes for the classificatory view of mental phenomena the conception of mind as a concrete system of interacting elements. He is thus compelled to have recourse to hypotheses introducing mental processes and factors which evade introspection, in order to interconnect in a continuous whole the factors and processes which introspection more directly reveals.

But in the framing of these hypotheses he is unbiased by any preconceived metaphysical system, and depends entirely on the exigencies of psychological explanation. He constantly claims that his psychology is based purely on internal experience. It is true that he often fails to distinguish between untenable guesses and facts supposed to be directly revealed through introspection. Indeed, his theories are in many points less strongly supported by experience than those of Herbart. Nevertheless, his view of the fundamental psychological processes seems to be at least in one important respect much better warranted by facts than is the Herbartian. I proceed to consider this aspect of Beneke's work, disengaging it as far as possible from other untenable parts of his teaching, by which it is hidden and disguised. It may be as well to premise that Beneke was a younger contemporary of Herbart, that he was born in 1798 and died in 1854, and that his principal works on psychology are *Psychologische Skizzen* (1825 and 1827), *Lehrbuch der Psychologie als Naturwissenschaft* (1833, 4th ed., 1877), and *Die Neue Psychologie* (1845).

§ 10. Beneke proposes a theory of Redistribution instead of a theory of Arrest. Herbart holds that, by reason of the simplicity of the soul, it is impossible for presentations of contrary quality to coexist in consciousness without reciprocal arrest. This principle pervades his whole system and gives unity to it. Now, Beneke being untrammelled by the Herbartian metaphysic was led to reject this theory of arrest on purely psychological grounds. He denies the existence of any evidence to show that contrary presentations, as such, conflict except under special conditions. The central position which the conception of direct conflict occupies in Herbart's system, belongs in Beneke's rather to the conception of competition. If Herbart's view may be illustrated by the analogy of physical forces acting at the same point in opposite directions, Beneke's suggests rather the process by which one body becomes cooler in communicat-

ing heat to another. Beneke holds that there is a continual redistribution of transferable elements within the total system of mental modifications, conscious and unconscious. Thus, when a presentation-desire or emotion rises either in consciousness or into consciousness, it does so because it receives an increased quantity of these transferable elements. Conversely, sinking in consciousness or out of consciousness is, except in certain special cases, due to the withdrawal of such elements. The direction in which interchange of transferable elements takes place is determined (1) by a general tendency to equal distribution, and (2) by the various degrees of union between the constituents of the mental system. The tendency to equal distribution is most important as a negative condition; excluding the possibility of transference from A to B, unless when A possesses more transferable elements than B. In the second place, transferable elements are communicated from one mental modification to others in greater or less quantity according to the greater or less intimacy of its union with them. Psychological union depends either on likeness or on coexistence in consciousness or on both. The union which depends on coexistence in consciousness is more or less intimate according as the coexistence is more or less complete or more or less often repeated. The coexistence of A with B gives rise, *ceteris paribus*, to a closer union the more completely each is present in consciousness. On the other hand, the least possible degree of union results when at the time of their coexistence one is in the last degree of obscurity and the other barely emerging from unconsciousness. Beneke does not enter into details as to the precise mode in which repetition strengthens mental combinations. No close and stable union depends on likeness alone; for as often as A reproduces an A¹ which resembles it, A and A¹ meet in consciousness, so that union between them must take place on this ground also. If we disregard Beneke's strange terminology, and consider only the most general purport of the above doctrine, it seems more in accord with the best teaching of later times than is the Herbartian theory of arrest. If we substitute the term "attention" or "psychical force" (*seelische Kraft*) for transferable elements, we see at once that Beneke's general position is not without essential analogy to that of Dr. J. Ward and of Dr. Theodor Lipps. But a closer examination of his teaching shows that the difference in terminology is a sign of most important differences in doctrine.

§ 11. *Characteristic Peculiarities of Beneke's Theory.* The phrase *transferable elements* is in Beneke's writings to be taken quite literally as indicating actual constituents of one presentation which are actually communicated to others. When A reproduces B, it is on this view supposed literally to lose a portion of its components, which become components of B. Beneke holds that there are two fundamentally distinct kinds of transferable elements on which voluntary and non-voluntary reproductions respectively depend. The original constituents of the soul anterior to experience are of essentially the same nature with the elements which mediate voluntary reproduction. Beneke calls this whole class of mental elements "faculties". They are supposed by him to be quite different from the faculties of the faculty-psychology. They are in themselves mere blind tendencies, which can become actual modes of consciousness only by appropriating other elements of a different nature. These other elements are called "stimulants". They come from without the mind, and are appropriated by the faculties in the process of sensation. When stimulants are thus appropriated by faculties they become constituents of the mental system. The part played by them within this system varies according as they do or do not enter into stable and permanent union with the faculties by which they are appropriated. In the former case they become fixed as distinguished from transferable elements. In the latter case they may become disunited from their existing combination and enter into new ones. They in this way become part of the transferable elements which are being perpetually redistributed within the mental system. By means of these free stimulants non-voluntary reproduction takes place. Voluntary reproductions, on the other hand, takes place by means of free faculties, which are not received from without, but are continually being generated within the mental system.

§ 12. *Critical Comparison of the Theory of Redistribution with that of Arrest.* Many of Beneke's hypotheses are no doubt quite wild and untenable. But the general conception of the working of the psychological mechanism through which presentations disappear and reappear, or wane and wax in distinctness, seems to have a firm basis in fact. I do not mean that the theory of transferable elements can be in any way justified. What I refer to is the general principle that the rising of one presentation is so correlated with the sinking of others, and *vice versa*, that the whole process can

best be formulated for psychological purposes as a transference of something from the presentation which wanes in distinctness to that which waxes in distinctness. This something we may regard either as a reality or as a fiction, and we may call it attention or psychical energy, or by any other convenient name. But we must not, like Beneke, regard it as a constituent element of the presented content. Nothing is ever transferred from one presented content to another. A presentation becomes more or less distinct as more or fewer qualitative details become distinguishable in it. Now it is obviously untrue that the qualitative details of one presentation ever become transferred to another when the latter becomes clearer in consequence of the former becoming obscured. Only when we disregard presented content, and merely formulate the mechanical connexion of mental processes in its quantitative aspect, do we find a legitimate scope and meaning for the conception of a transferable somewhat continually redistributed within the mental system. From this point of view, however, the conception is certainly of value, and it is to be preferred to Herbart's theory of conflict. The antagonism of presentations arising from the contrariety of their content was asserted by Herbart as a consequence of the simplicity of the soul, and it loses all *a priori* plausibility when this simplicity is denied. Nor is it the most natural hypothesis suggested by the obvious facts revealed to introspection. Common sense certainly favours the view that variation in the relative distinctness of presentations is conditioned by limitation in the total quantity of attention, which, as it is concentrated on one object, is *ipso facto* withdrawn from others. Mental conflict is generally recognised as taking place under certain conditions, *e.g.*, when different reasons urge us to attach contrary predicates to the same subject, or when different motives impel us to incompatible lines of action. But this kind of struggle, although its importance in mental life can hardly be exaggerated, does not resemble the Herbartian conflict of presentations either in its nature or in the conditions of its genesis. These reasons are sufficient to raise a presumption against Herbart's hypothesis. More serious objections may be brought against his theory on the ground of its internal inconsistency and its incompatibility with obvious facts. It is inconsistent both to admit and to deny the possibility of contrary contents being co-presented. Yet this contradiction is involved in the theory of arrest. If antagonism between two presentations arises solely from their qualitative contrariety, it is im-

possible that it should cease to exist except through the extrusion of both presentations from consciousness, or through their qualitative modification within consciousness. These alternatives are, however, both excluded by the facts, seeing that contrary contents are co-presented in every moment of conscious life. Hence Herbart was compelled to be untrue to his fundamental position, being reduced to the assumption that contrary contents might coexist in consciousness provided that each suffered diminution in intensity to a certain calculable degree. Another fallacy is contained in the conception of a variation affecting intensity independently of quality. The words "obscure" and "distinct" indicate a qualitative difference. A presentation is more or less distinct according to the number of qualitative details distinguishable within it. It is true that concentration and withdrawal of attention in Dr. J. Ward's sense may or may not occasion corresponding increase and decrease of distinctness. But even in this case a qualitative variation takes place, which may be described as a difference in mass, or, to use a phrase of Mr. H. Spencer's, a difference of "area in consciousness". On the whole, we must treat as a meaningless fiction Herbart's assumption that a presentation may pass through an indefinite number of gradations of intensity and yet retain unaltered its characteristic quality.

§ 13. *Beneke's Relation to English Psychology.* Beneke tells us that in his youth, when his opinions were yet in process of formation, he made an earnest study of English philosophical writings (*Die Neue Psych.*, p. 81). He seems throughout his career to have followed the progress of English thought with lively interest, and he never fails to recognise in it a spirit and tendency kindred to his own. He complains, indeed, that the English do not go deep enough, and that they even stop short, in many cases, where inquiry ought properly to begin. But he maintains that they are on the same track which he himself endeavours to follow, the only difference being that he pursues this track further than they (*Die Neue Psych.*, pp. 300-337). He was at least in agreement with them on two fundamental points—(1) the dependence of all other branches of philosophy on psychology, (2) the dependence of psychology on introspection, and in the last resort on introspection only. These capital points of agreement with English thinkers are at the same time capital points of disagreement between him and Herbart. Further traces of English influence on Beneke are perhaps to be found in his assiduous study of all facts likely to throw

light on psychological problems, and at times also in his treatment of special questions. It must, however, be confessed that there was one lesson which he failed to learn from his favourite English writers. He did not learn from them to be cautious. The word which in the mouths of Reid, Brown and Stewart expressed the highest praise that a writer on the philosophy of the human mind could merit, was the word "judicious". Now, Beneke was anything rather than judicious. He claimed with reason the right of framing hypotheses to explain observed facts. But he pushed his hypotheses far beyond what the exigencies of psychological explanation required. Worse than this, he regarded some of his most arbitrary theories, *e.g.*, the appropriation of stimulants by faculties, as directly based on the evidence of introspection. Nevertheless, it is right to treat him as a kind of link between English Associational psychology on the one hand, and the psychology of Herbart on the other. For he was at one with the latter in his endeavour after complete mechanical explanation, and he was at one with the former in starting from introspection alone, to the exclusion of preformed metaphysical views.

I propose to follow with two more articles: one dealing with the school founded in Germany by Herbart; and the last treating of the general influence of Herbart on psychological science.

II.—THE EVOLUTION OF MORALITY.

By Prof. JAMES SETH.

THE conception of Evolution has now established itself so firmly in the scientific and even in the popular mind that it becomes necessary for Philosophy to come to an understanding with it. If it may be said that generally the business of Philosophy is the investigation of the ultimate value of scientific conceptions, it must be peculiarly concerned with this, the latest and widest, generalisation of science. More particularly, it is of the utmost importance, for the satisfaction not only of the speculative but also of the practical interest, to determine the ethical implications of the Evolution-theory. Does it carry with it any ethical doctrine; and if so, how is this related to older theories, and how far does it take us in the interpretation of the facts of moral life? For an answer to these questions Evolutionists, even when not professed philosophers, have not left us entirely to ourselves. Their answers, however, are different, and even, in some points, contradictory. Limiting our attention to representative writers, we have three answers, more or less divergent. The bearing of the Evolution-theory upon human life and conduct has been investigated by its most original modern exponent in the *Descent of Man* (pt. i. c. 4), more elaborately by Mr. Herbert Spencer in his *Data of Ethics*, and still more recently and fully by Mr. Leslie Stephen in his *Science of Ethics*.

While these writers differ in their account of moral life, and in their definition of the ethical end, they are at one on the question of method. The reform in ethical method which they, and the "school" constituted by their followers, seek in common to introduce is, in words, the same as Kant's reform of metaphysical procedure, namely, to make it "scientific". Previous ethical theories, they say, have been either "empirical" or "*a priori*". Neither method is the true one. Apply the principle of Evolution to the phenomena of moral life, as it has already been applied to the phenomena of physical life and inorganic nature, and the former, equally with the latter, will fall into order and system. Morality, like Nature, has evolved; and neither can be understood except in the light of its evolution. Nay, the evolution of morality is part and parcel of the general

evolution of nature, its crown and climax indeed, but of the same warp and woof. In the successful application of his theory to moral life, therefore, the Evolutionist sees the satisfaction of his highest ambition ; for it is here that the critical point is reached which shall decide whether or not his conception is potent to reduce all knowledge to unity. If morality offers no resistance to its application, its adequacy is once for all completely vindicated. Thus we are offered, by the three writers mentioned, what Green calls a "natural science of morals". Mr. Leslie Stephen, indeed, expressly limits himself to the "scientific" view, not excluding a possible "philosophical" or "transcendental" account of the same facts. But Mr. Stephen, equally with Darwin and Spencer, implies throughout that the "scientific" or "natural" account of morality is the only fruitful one. I propose in this paper, after tracing summarily the results reached by this new ethical method in the hands of the three thinkers just named, to endeavour to arrive at some estimate of its adequacy as employed by them for the solution of the main problems of ethics.

Man's chief superiority to the lower animals, according to Darwin, lies in his "intellectual powers" and "social qualities". But even here, in his mental and moral faculties, Darwin recognises no essential difference between man and the higher mammals. "The difference . . . great as it is, certainly is one of degree, and not of kind. . . . The senses and intuitions, the various emotions and faculties, . . . of which man boasts, may be found in an incipient, or even sometimes in a well-developed condition, in the lower animals." Of these faculties, "the moral sense or conscience" is, he admits, "by far the most important". Approaching the question of its nature and genesis "exclusively from the side of natural history" (for the first time, as he says), he enunciates the following proposition as "in a high degree probable":—"that any animal whatever, endowed with well-marked social instincts, the parental and filial affections being here included, would inevitably acquire a moral sense or conscience as soon as its intellectual powers had become as well, or nearly as well, developed as in man". The origin of the moral sense is thus found in the social impulse, a primary animal instinct which demands its satisfaction as immediately as any other instinct. Its development is due to the obvious utility of such an instinct ; here, as elsewhere, the Law of Evolution is "natural selection". The social instinct being "one

of high importance to all those animals which aid and defend one another, it will have been increased through natural selection ; for those communities which included the greatest number of the most sympathetic members would flourish best and rear the greatest number of offspring ”.

But how shall we account for the peculiar authority of the moral, that is, the social, feelings ? The social instincts are not actually stronger than “the instincts of self-preservation”. “Why, then, does man regret, even though trying to banish such regret, that he has followed the one natural impulse rather than the other ; and why does he further feel that he *ought* to regret his conduct ? Man in this respect differs profoundly from the lower animals.” With the latter, the question is one merely of the relative strength of different impulses ; with man, there is clearly another consideration. As a reflective being, he cannot help instituting a comparison between the results which follow the gratification of his various impulses. The social instincts, he finds, are “ever present and persistent,” while the others are in their nature “temporary”. The former are also more capable of being recalled in imagination, and, to man as a social being, afford a greater satisfaction than the latter. On these differences is based the distinction between the actual and the legitimate strength of an impulse. Let a man gratify a peremptory selfish instinct, what will be his experience as he regards this gratification in the calm light of reflection ? “When past and weaker impressions are judged by the ever-enduring social instinct, and by his deep regard for the good opinion of his fellows, retribution will surely come. He will then feel remorse, repentance, regret or shame. . . . He will consequently resolve, more or less firmly, to act differently for the future ; and this is conscience.” “Thus at last man comes to feel, through acquired and perhaps inherited habit, that it is best for him to obey his more persistent impulses. The imperious word *ought* seems merely to imply the consciousness of the existence of a rule of conduct, however it may have originated.”

This theory of morality Darwin enunciates as the ethical corollary of the general theory of Evolution. His position may be called Utilitarian ; but Darwin himself distinguishes it carefully from Hedonism, whether of the egoistic or altruistic type. The result of reflection on human conduct and its motives is, he holds, the recognition, in man, of “an impulsive power widely different from a search after pleasure or happiness ; and this seems to be the deeply-planted social

instinct". Further, the object of this primary and enduring instinct is "the general good or welfare of the community, rather than the general happiness". "The term general good may be defined as the rearing of the greatest number of individuals in full vigour and health, with all their faculties perfect, under the conditions to which they are subjected." The "general good or welfare" and the "general happiness," it is true, "usually coincide"; "and, as all wish for happiness, the 'greatest happiness principle' will have become a most important secondary guide and object". But the direct and primary object of the social instinct is the welfare—in the sense explained above—of the community, narrower or wider, and ultimately of the race itself. In this alone it finds its proper satisfaction; and in proportion as the intellectual grasp of this becomes more comprehensive, the range of the social instinct, and thus of morality itself, is extended.

— Mr. Spencer, while professing to limit himself, like Darwin, to "the implications of the Evolution-hypothesis," offers us a theory of morality essentially different from that just described. He differs from Darwin in his account of the ethical end, of the place of obligation in moral life, and of the relation of the egoistic and altruistic sides of morality. His attitude to older theories is also different. While Darwin, without regard to the various historical theories of morality, elaborated an independent ethical theory on the basis of Evolution, Mr. Spencer undertakes his task with a "reconciling project" of an ambitious kind.

The subject-matter of Ethics is, in his view, "that form which universal conduct assumes during the last stages of its evolution". Conduct is "the adjustment of acts to ends," and in the growing complexity and completeness of this adjustment consists its evolution. Things and actions are "good or bad according as they are well or ill adapted to achieve prescribed ends," or "according as the adjustments of acts to ends are or are not efficient". And, ultimately, their goodness or badness is determined by the measure in which all minor ends are merged in the grand end of self- and race-preservation. As "evolution becomes the highest possible where the conduct simultaneously achieves the greatest totality of life in self, in offspring and in fellow-men, so . . . the conduct called good rises to the conduct conceived as best when it fulfils all three classes of ends at the same time". Thus "the ideal goal to the natural

evolution of conduct" is at the same time "the ideal standard of conduct ethically considered".

The universal end of conduct, therefore, is "life"—its preservation and development. But Mr. Spencer is not content, like Darwin, with this simple deduction from the theory of Evolution. He proceeds to interpret "life," on the old hedonistic lines. "In calling good the conduct which subserves life, and bad the conduct which hinders or destroys it, and in so implying that life is a blessing and not a curse, we are inevitably asserting that conduct is good or bad according as its total effects are pleasurable or painful." "No school can avoid taking for the ultimate moral aim a desirable state of feeling called by whatever name—gratification, enjoyment, happiness. Pleasure, somewhere, at some time, to some being or beings, is an inexpugnable element of the conception. It is as much a necessary form of moral intuition as space is a necessary form of intellectual intuition."

The modification thus given to the old Utilitarianism, however, by the application of the conception of Evolution, must be carefully noted. While former Utilitarian theories were empirical and inductive, Evolutional Utilitarianism is rational and deductive. The old Utilitarianism, which derived its principles of conduct from observation of consequences, or, at best, as with Mill, by deduction from rules which are themselves the result of previous inductions, "is but preparatory to the utilitarianism which deduces these principles from the processes of life, as carried on under established conditions of existence". For, since the moral estimate of conduct proceeds entirely upon the relative efficiency of the adjustment of the living being to the conditions of his life, that is, to his environment, physical and social; from the nature of these conditions and their variations, the nature of the corresponding conduct and its variations may with certainty be deduced.

Further, this view of moral principles, it is contended, not only places Utilitarianism upon a new and scientific basis, it also affords a ground of conciliation between "intuitional" and "derivative" theories of morality. For, while moral rules, thus conceived, are seen to be the result of the experience of the race, to the individual they still present themselves as "intuitions". Moral intuitions are not, any more than intellectual intuitions, simple and original; they are "the slowly organised results of experiences received by the race". But these results are not to be regarded as an external possession, as a "nautical almanac" which may

or may not be consulted by the individual. They are a part of himself, as the heir of all the ages which have preceded him. The experience of the race does not consist of isolated parts, or pass away; it becomes "organised and consolidated" in the individual consciousness.

But conduct—human conduct at least—has also a subjective side; the adjustment of acts to ends is, or may be, conscious. In describing this inner side of conduct, Mr. Spencer professes to trace "the genesis of the moral consciousness". Its "essential trait" he finds to be "the control of some feeling or feelings by some other feeling or feelings"; and "the general truth disclosed by the study of evolving conduct, sub-human and human," is that, "for the better preservation of life, the primitive, simple, presentative feelings must be controlled by the later-evolved, compound and representative feelings". Mr. Spencer mentions three controls of this kind—the political, the religious and the social. These do not, however, severally or together, "constitute the moral control, but are only preparatory to it—are controls within which the moral control evolves". "The restraints properly distinguished as moral are unlike those restraints out of which they evolve, and with which they are long confounded, in this—they refer not to the extrinsic effects of actions, but to their intrinsic effects. The truly moral deterrent is . . . constituted . . . by a representation of the necessary natural results."

Thus arises "the feeling of moral obligation," "the sentiment of duty". "It is an abstract sentiment generated in a manner analogous to that in which abstract ideas are generated." On reflection, we observe that the common characteristic of the feelings which prompt to "good" conduct is that "they are all complex, re-representative feelings, occupied with the future rather than the present. The idea of authoritativeness has, therefore, come to be connected with feelings having these traits." There is, however, another element in the "abstract consciousness of duty," viz., "the element of coerciveness". This Mr. Spencer derives from the various forms of pre-moral restraint just mentioned. But, since the constant tendency of conduct is to free itself from these restraints, and to become self-dependent and truly "moral," "the sense of duty or moral obligation [*i.e.*, as coercive] is transitory, and will diminish as fast as moralisation increases. . . . While at first the motive contains an element of coercion, at last this element of coercion dies out, and the act is performed without any consciousness of being obliged to perform it;" and thus

"the doing of work, originally under the consciousness that it *ought* to be done, may eventually cease to have any such accompanying consciousness," and the right action will be done "with a simple feeling of satisfaction in doing it". Since the consciousness of obligation arises from the incomplete adaptation of the individual to the social conditions of his life, "with complete adaptation to the social state, that element in the moral consciousness which is expressed by the word obligation will disappear. The higher actions required for the harmonious carrying on of life will be as much matters of course as are those lower actions which the simple desires prompt. In their proper times and places and proportions, the moral sentiments will guide men just as spontaneously and adequately as now do the sensations."

The conflict between the interests of society and those of the individual, which is the source of the feeling of Obligation as coercive, is not absolute and permanent. A "conciliation" of these interests is possible. Egoism and Altruism both have their rights; we cannot, with Darwin, merge the former in the latter. Egoism, indeed, is the first necessity of life. Since "a creature must live before it can act," it follows that "the acts by which each maintains his own life must, speaking generally, precede in imperativeness all other acts of which he is capable". So also when we regard conduct on its social side, we find that "the acts required for continued self-preservation, including the enjoyment of benefits achieved by such acts, are the first requisites to universal welfare". There is, in short, a "permanent supremacy of egoism over altruism," and "a rational altruism requires insistence on that egoism". On the other hand, "from the dawn of life, altruism has been no less essential than egoism. Though primarily it is dependent on egoism, yet secondarily egoism is dependent on it." When we study the history of evolving life, we find that "self-sacrifice is no less primordial than self-preservation," and that, throughout, "altruism has been evolving simultaneously with egoism". "From the dawn of life egoism has been dependent upon altruism, as altruism has been dependent upon egoism; and in the course of evolution the reciprocal services of the two have been increasing."

Thus "pure egoism and pure altruism are both illegitimate"; and "in the progressing ideas and usages of mankind" a "compromise between egoism and altruism has been slowly establishing itself". Nay, a "conciliation has been, and is, taking place between the interests of each citizen and the interests of citizens at large; tending ever

towards a state in which the two become merged in one, and in which the feelings answering to them respectively fall into complete concord". Thus "altruism of a social kind . . . may be expected to attain a level at which it will be like parental altruism in spontaneity—a level such that ministrations to others' happiness will become a daily need". This consummation will be brought about by the same agency which has effected the present partial conciliation, *viz.*, sympathy, "which must advance as fast as conditions permit". During the earlier stages of the evolution sympathy is largely painful, on account of the existence of "much non-adaptation and much consequent unhappiness". "Gradually, then, and only gradually, as these various causes of unhappiness become less, can sympathy become greater. . . . But as the moulding and re-moulding of man and society into mutual fitness progresses, and as the pains caused by unfitness decrease, sympathy can increase in presence of the pleasures that come from fitness. The two changes are, indeed, so related that each furthers the other." And the goal of evolution can only be perfect identity of interests, and the consciousness of that identity.

Mr. Leslie Stephen, the latest authoritative exponent of the Ethics of Evolution, institutes, in his *Science of Ethics*, a really independent inquiry; while agreeing partly with Darwin and partly with Mr. Spencer, he resumes their task, and seeks, unhampered by their *dicta*, "to lay down an ethical doctrine in harmony with the doctrine of evolution". Following Darwin in his insistence upon Altruism as the ground-form of morality, and upon Sympathy as a primary animal instinct, he agrees with Mr. Spencer in giving a hedonistic interpretation of "Welfare," the end of the evolution, and accordingly, in offering, as the ethical deduction from the Evolution-theory, a "re-statement or re-construction" of Utilitarianism. Mr. Stephen's theory is further interesting as pressing to its logical issues the biological view of morality implied in the theories of both his predecessors, and also as recognising and facing, with great candour, the difficulties of that view.

The foundation upon which Mr. Stephen would base his reconstruction of Utilitarianism is a deeper view of society and of its relation to the individual. The old Utilitarianism conceived society as a mere "aggregate" of individuals. The utilitarian was still an "individualist," though he spoke of "the greatest number" of individuals; the individual was still his unit. Now, according to Mr. Stephen, the true

unit is not the individual, but society, which is not a mere "aggregate" of individuals, but an "organism," of which the individual is a member. "Society may be regarded as an organism, implying . . . a social tissue, modified in various ways so as to form the organs adapted to various specific purposes." Further, the social organism and the underlying social tissue are to be regarded as evolving. The social tissue is being gradually modified so as to form organs ever more perfectly adapted to fulfil the various functions of the organism as a whole; and the goal of the movement is the evolution of the social "type"—that is, of that form of society which represents "maximum efficiency" of the given means to the given end of social life. In short, we may say that the problem which is receiving its gradual solution in the evolution of society, is the production of a "social tissue," or fundamental structure, the most "vitally efficient".

In describing the ethical end, therefore, we must substitute for "the greatest happiness of the greatest number" of individuals, the "health" of the social organism, or, still more accurately, of the social tissue. The true "utility" is not the external utility of consequences. Life is not "a series of detached acts, in each of which a man can calculate the sum of happiness or misery attainable by different courses". It is an organic growth; and the results of any given action are fully appreciated only when the action is regarded, not as affecting its temporary "state," but as entering into and modifying the very substance of its fundamental structure. The "scientific criterion," therefore, is not Happiness, but Health. "We obtain unity of principle when we consider, not the various external relations but, the internal condition of the organism. . . . We only get a tenable and simple law when we start from the structure, which is itself a unit."

At the same time, the two criteria—health and happiness—"are not really divergent; on the contrary, they necessarily tend to coincide". The general correlation of the painful and the pernicious, the pleasurable and the beneficial, is obvious. "'The useful,' in the sense of *pleasure-giving*, must approximately coincide with the 'useful' in the sense of *life-preserving*. . . . We must suppose that pain and pleasure are the correlatives of certain states which may be roughly regarded as the smooth and the distracted working of the physical machinery, and that, given those states, the sensations must always be present." And in the evolution of society we can trace the gradual approximation to coincidence of these two senses of "utility".

Objectively considered, then, moral laws may be identified with the conditions of social vitality, and morality may be called "the sum of the preservative instincts of a society". That these laws should be perceived with increasing clearness as the evolution proceeds, is also a corollary of the Evolution-theory; as the social type is gradually elaborated, the conditions of its realisation will be more clearly perceived. But morality has also a strictly subjective side, which is yet to be considered. Corresponding to social welfare or health—the objective end—there is, in the member of society, a social instinct or sympathy, with that welfare or health for its object. The old opposition between the individual and society is fundamentally erroneous, depending as it does upon the inadequate mechanical conception of society already referred to. Nor is the identification of individual and social interests in the mind of the member of society the result of mere Association. "The difference between the sympathetic and the non-sympathetic feelings is a difference in their law or in the fundamental axiom which they embody." "The sympathetic being becomes, in virtue of his sympathies, a constituent part of a larger organisation. He is no more intelligible by himself alone than the limb is in all its properties intelligible without reference to the body." Just as "we can only obtain the law of the action of the several limbs" when we take the whole body into account, so with the feelings of "the being who has become part of the social organism. . . . Though feelings of the individual, their law can only be determined by reference to the general social conditions." Social sympathy is therefore a primary and direct instinct, not a secondary and indirect result of association. As a member of society, and not a mere individual, man cannot but be sympathetic. "To be reasonable, he must be sympathetic;" without sympathy he cannot "develop as a reasonable agent". The growth of society implies as its correlate "the growth of a certain body of sentiment" in its members; and, in accordance with the law of natural selection, this instinct, as pre-eminently useful to the social organism, will be developed—at once extended and enlightened. "Every extension of reasoning power implies a wider and closer identification of self with others, and therefore a greater tendency to merge the prudential in the social axiom as a first principle of conduct."

Thus what is generated in the course of Evolution is not merely a type of conduct, but a "type of character"—not merely altruistic conduct, but "the elaboration and regula-

tion of the sympathetic character which takes place through the social factor". We can trace the gradual progress from the external to the internal form of morality; from the law "Do this" to the law "Be this". Moral progress may be regarded as a "process of generalisation . . . a vast induction carried on by the race as organised in society," resulting in the discovery that "the most general rules of conduct must be expressed in terms of character"; accordingly we see how approval of a certain type of conduct "develops into approval of a certain type of character, the existence of which fits the individual for membership of a thoroughly efficient and healthy social tissue". This, according to Mr. Stephen, is the true account of Conscience, which is not a "separate faculty," "an instinct co-ordinate with other instincts," but "a function of the whole character . . . a mode of reaction of the whole character". "Moral approval is the name of the sentiment developed through the social medium, which modifies a man's character in such a way as to fit him to be an efficient member of the social tissue. It is the spiritual pressure which generates and maintains morality;" the representative and spokesman of morality in the individual consciousness. "The conscience is the utterance of the public spirit of the race, ordering us to obey the primary conditions of its welfare."

Here, also, Mr. Stephen finds the true basis of Obligation, which is to be conceived as coercion not from without but from within. So far as a man "can properly be called virtuous, it is because the outward has become an inward law; it is no longer a law in the juridical but in the scientific sense; it is not a rule enforced by external sanctions, but the 'law' of his character, or the formula which expresses the way in which he spontaneously acts. Society does not force him to act against his will; it has annexed and conquered his will itself." He is obliged by, because he shares, "the organised opinions of the society to which he belongs".

So far Mr. Stephen's theory might seem, in the main, a development of Mr. Spencer's; but he does not see his way to assent to Mr. Spencer's absolute Optimism. Morality, he finds, is unconditionally "useful," *i.e.*, conducive to the welfare or health of society, but "not to the individual". Thus "difficulty arises when we change our point of view from society to the individual. . . . Virtue is a condition of social welfare; but why should I be virtuous?" This question, Mr. Stephen thinks, is one which cannot be answered.

His point of view, we must remember, is that of Hedonism; and regarding the problem from that point of view, he pronounces it "intrinsically insoluble". "The attempt to establish an absolute coincidence between virtue and happiness is in ethics what the attempting to square the circle or to discover perpetual motion is in geometry and mechanics." Instead, therefore, of constructing a future Utopian society, in which virtue and happiness will perfectly coincide in individual as well as in social experience, he "thinks it better frankly to abandon the hopeless endeavour".

Comparing the three theories just sketched, we must distinguish between that of Darwin, on the one hand, as alone the legitimate and simple deduction from the theory of Evolution, and those of Mr. Spencer and Mr. Stephen, on the other, as attempts to find in the doctrine of Evolution a new and scientific basis for Utilitarianism. As an ethical theory, indeed, Darwin's is a mere fragment, but it is so just because its author refuses to speak beyond his record. So far as it goes, it is the outcome of a fair and unbiased endeavour to account for the phenomena of moral life, as for all other phenomena, on the hypothesis of Evolution. On that hypothesis, the ethical End may be described as "the general good" or "welfare"; and this, again, "may be defined as the rearing of the greatest number of individuals in full vigour and health, with all their faculties perfect, under the conditions to which they are subjected"; or, in the words of Mr. Spencer, as "the greatest totality of life in self, in offspring and in fellow-men". In other words, the ethical End is simply the attainment of the maximum of life, alike in length and breadth. The point of view of Evolution is that of *existence*; and if the Evolutionist is entitled to say that the "*fittest*" must survive, he can only mean the fittest for the life-struggle, or the fittest to *exist*. Mere "survival" in the universal struggle for existence is the motive and end of Evolution.

But, as Prof. Sidgwick says (MIND i. 59) "the doctrine that resolves all virtues and excellences into the comprehensive virtue 'of going on, and still to be,' can hardly find acceptance". In order to an ethical theory, we must distinguish εὖ ζῆν from ζῆν, "desirable" life from mere existence. Darwin himself introduces this further consideration in characterising the end as "Good" or "Welfare". Hence we are compelled to ask—What constitutes life desirable? This additional, and properly ethical question, suggested but not discussed by Darwin, is explicitly raised by Mr. Spencer

and Mr. Stephen; and the answer which readily occurs to both is the old answer of Hedonism—Life is good or desirable in so far as it is pleasant. Darwin's "General Good or Welfare" is interpreted as "General Happiness"; and the result is the new or Evolutional Utilitarianism.

Taken as a "re-statement of Utilitarianism," this position is an indefinite advance on older statements of the theory. Its view is directed to the inner character and motive, not to mere external consequences. Its method is deductive, not merely inductive. It regards society as an organic unity, and not as a mere aggregate of individuals. By the application of the theory of heredity, it even offers a ground of reconciliation between Utilitarianism and Intuitionism. But what concerns us here is not the merit of the new Utilitarianism as compared with the old, but the legitimacy of Evolutional Utilitarianism as such. We have to ask whether the theory of Evolution affords a secure foundation for this superstructure, whether the physical theory of Evolution and the ethical theory of Utilitarianism are essentially akin,—the one being the logical corollary of the other,—or whether they are only artificially brought together.

Life, it is said, means Happiness, and the evolution of life means increase of happiness; preservative actions being necessarily pleasurable, and pernicious actions necessarily painful, the evolutional and the hedonistic tests obviously coincide. Now, in order to the legitimacy of such an affiliation of Hedonism and Evolutionism, two points must be proved: first, that life is essentially desirable in respect of the happiness it yields, or that life-preserving and pleasure-giving actions coincide—the general theorem of Optimism; and, secondly, that increase of life is synonymous with increase of happiness, or that the tendency of Evolution is optimistic. Of neither of these positions is clear proof offered. This has been so clearly and forcibly brought out by Prof. Sorley in his *Ethics of Naturalism* (chap. vii., on "Hedonism and Evolutionism") that it is unnecessary to dwell upon it at length.

With reference to the former point, Mr. Spencer contents himself, in the main, with mere assumption, and scornful denunciation of the thorough-going pessimist; and, for the rest, constructs a Utopia in which the happiness of the individual and the interests of society will perfectly coincide. Mr. Stephen, on the other hand, acknowledges a permanent conflict between the two. "The path of duty does not coincide with the path of happiness. . . . By acting rightly, I admit, even the virtuous man will sometimes be making a

sacrifice ;" it is " necessary for a man to acquire certain instincts, amongst them the altruistic instincts, which fit him for the general conditions of life, though, in particular cases, they may cause him to be more miserable than if he were without them". And even Mr. Spencer acknowledges " a deep and involved"—though not a permanent—" derangement of the natural connexions between pleasures and beneficial actions, and between pains and detrimental actions".

But, it is contended, such a statement will not be " conclusive for the virtuous man. His own happiness is not his sole ultimate aim ; and the clearest proof that a given action will not contribute to it will, therefore, not deter him from the action." The individual, as a member of the social organism, forgets his own welfare or happiness in that of society. From the hedonistic point of view, however, we cannot thus merge the individual in society. We must not be misled by the metaphor of the " social organism,"—for it is only a metaphor after all, and a metaphor, as Mr. Stephen fears, " too vague to bear much argumentative stress". As Prof. Sidgwick remarks, it is not the organism, but " the individual, after all, that feels pleasure and pain". It is true that " the development of the society implies the development of certain moral instincts in the individual, or that the individual must be so constituted as to be capable of identifying himself with the society, and of finding his pleasure and pain in conduct which is socially beneficial or pernicious". Yet the individual can never wholly identify himself with the society, simply because he remains, to the last, an individual. It is said that the antagonism of individual and social interests is incidental to the transition-stages of the evolution, and that with the development of sympathy and the perfect adaptation of the individual to his social environment, complete identity of interests will be brought about. But, so long as the interest is merely that of pleasure, perfect identity of interests is impossible. The metaphor of the " social organism" is here particularly misleading. As Prof. Sorley remarks, " the feeling of pleasure is just the point where individualism is strongest, and in regard to which mankind, instead of being an organism in which each part but subserves the purposes of the whole, must rather be regarded as a collection of competing and co-operating units". From the point of view of pleasure, society is not an organism but an aggregate of individuals ; and, if we speak of the " health" of the society, we cannot mean *its* happiness, but simply the general conditions of the happiness

of its individual members. As Mr. Stephen acknowledges, there is a permanent dualism between the "prudential" and the "social" rules of life, "corresponding to the distinction of the qualities which are primarily useful to the individual and those which are primarily useful to the society". The former code cannot be incorporated in the latter.

On the whole, therefore, while we admit the general correlation between pleasurable and preservative, painful and pernicious actions, as well as the general harmony of the well-being of the race with that of the individual, we must conclude, with Prof. Sidgwick (*MIND* i. 65), that "this double harmony between pleasant and preservative, and between individual and universal well-being, is ideal and future; that it does not represent accurately the present, and still less the past, experience of the human race"; and, accordingly, that the claim to "scientific" character based upon it by Evolutional Utilitarianism has not been made out.

This brings us to the second point in the proof of Evolutional Hedonism, *viz.*, that the tendency of Evolution is optimistic. Now, although the tendency of evolution is towards a more and more complete correlation of "painful and pernicious, pleasurable and beneficial," on the one hand, and of the happiness of each with that of all, on the other; yet, looking at the facts of progressive morality, we must admit that moral progress is not synonymous with increase of happiness. For here, as in the former case, it is to be noted that happiness is a matter of individual experience; and in so far as the individual suffers by the general evolution, the hypothesis of Hedonism is disallowed. A candid regard for the facts of evolving morality will lead us to agree with the cautious conclusion of Mr. Stephen rather than with the unqualified optimism of Mr. Spencer. "I see no reason to suppose," says Mr. Stephen, "that pain will be eliminated, or that it will be so distributed that there shall never be a divergence between the painful and the pernicious, either to man or society. From the scientific point of view, we may hold that evolution implies progress—progress, at any rate, to a point beyond our present achievements; and, further, progress implies a solution of many discords, and an extirpation of many evils; but I can, at least, see no reason for supposing that it implies an extirpation of evil in general, or the definitive substitution of harmony for discord".

Such a recognition of a moral pain implied in moral progress—forced upon us by the facts of the case—necessitates

our giving up the hedonistic position, and our advancing to another, more adequate to the actual nature of morality. If "virtue may be painful and vice pleasant," pleasure is not the ultimate in moral life; pain may take its place in the moral development, and may even derive its significance from that advance which it renders possible. Nor does it follow, because the more highly-evolved state is, on the whole, the more pleasant, that its pleasantness constitutes its entire or essential character as the more highly evolved, or that "the actual progress in morality is always determined at every point by utilitarian considerations"; and unless this is made out, we must once more demur to the conclusion of Evolutional Utilitarianism.

On the whole, then, we seem compelled to conclude, with Darwin, that an impartial study of the evolution of morality does not corroborate the hedonistic interpretation. While we must recognise a hedonistic element in morality and in its evolution, we cannot admit that Hedonism, even in its evolutional or "scientific" form, is a final and adequate account of morality. After we have accepted the Evolution-theory as a true account of the history of life, it remains to ask—How shall we interpret "life"; how determine "progress" or "improvement"; how define the "tendency" of the evolution? These questions cannot be answered by an off-hand identification of "life" with "happiness," and of "improvement" with "increase of happiness"; whatever hypothesis is adopted must be verified by careful comparison with the facts. They are questions to which the Evolution-theory itself does not supply an answer. To take the first, "social vitality" is said to be the End of evolution. But what is the true or typical "life" of society, or rather of man as a member of society? Merely to say that "life" is the End, and that "life-preserving" conduct is moral, is to leave the properly ethical question untouched. We must still ask, What *kind* of life is it which is to be preserved—which is worth preserving? Mr. Stephen's answer to the same question—that the moral standard is "social health"—is equally unavailing. Taken metaphorically, it is an obvious tautology. For "healthy" simply means "normal"; and we must still ask, Who is the healthy man; what is the norm or standard of life? If, on the other hand, we press the literal meaning of the term, its inadequacy at once appears. Intemperance is *not* "proved to be immoral by the same methods which prove it to be unwholesome". Thus the old central question of ethics—

that of the "standard of life"—remains unanswered. Evolution, in short, is silent on the proper questions of ethics; and Evolutional Utilitarianism, far from being the result of an impartial study of the evolution of morality, is an ethical theory read into the evolution. The affiliation of the Utilitarian theory with the doctrine of Evolution would be an obvious advantage to the former, as providing it with a "scientific" basis; but I see not why a "rational" theory of morality is not at least as fully entitled to such advantage. The advantage is, however, in any case only apparent. The ethical theory, of whatever type, must in the end be judged on its own merits; the doctrine of Evolution can legitimately afford help to none. "Within the sphere of scientific thought," and particularly within the limits of the theory of Evolution, Darwin's is the only legitimate position. His only error is in offering it as an ethical theory. From the point of view of Evolution, that is, from the scientific point of view, all ethical theories are equally probable or improbable. The final interpretation of "Good" or "Welfare," that is, the determination of the ethical End, is beyond the scope of science. It is a philosophical question in regard to which, while his successors have made bold to speak, Darwin had the wisdom of silence.

Having thus narrowed the Evolution-theory of morals to its earliest or Darwinian form, and genuine developments of that by later writers, I will now seek to make good the above general criticism by examining shortly its answer to the three historical questions of ethics—the nature of the ethical End or Standard, of the "moral sense" or Conscience, and of Obligation.

(1) The ethical End or Standard is defined as "social welfare"; but, as society can be said to "live" only in the life of its individual members, social welfare is ultimately reducible to personal welfare—the welfare of the individual members of society. Now, we have already seen that, in order to an ethical theory, we must not regard the mere quantity, but also the quality, of the "life" which forms the moral end; we must ask. What is the *kind* of life, fitness to preserve and develop which constitutes the title to survival? And as soon as this question is raised, we see that the kind of life which is ultimately worthy of survival is not mere physical life, nor yet the life of mere sentiency, but self-conscious life. It is *this* life that, from the first, asserts its supreme claim; it is this, in all the breadth and depth of its rich content, that guides and moulds the course of the evolu-

tion from first to last; and it is in terms of this alone that moral progress can be understood.

From the very nature of the case, therefore, a theory of physical Evolution can offer no contribution to the determination of the ethical End. Moral distinctions are incapable of being reduced to physical. They are essentially spiritual—distinctions within self-consciousness; to a life without this they cannot apply, and from such a life the moral life cannot be developed. Hence the obvious inadequacy of terms borrowed from physical life, like "organism," "tissue," &c., when used to characterise moral life. Moral welfare may indeed contain physical elements; and the moral evolution may, in concrete fact, be inseparably bound up with the physical. Further, physical life is the first necessity; a man—or a society of men—must *live*, that they may live well or morally. This, the mere ground or "raw material" of moral life, is all that the theory of physical Evolution contemplates. Moral welfare cannot at any stage be identified with physical welfare, or constituted by physical elements. Still less can the moral evolve from the physical; if morality is to evolve, the evolution must from the first be moral, and not merely physical. The higher cannot be explained by the lower—the moral by the non-moral, morality being simply "that form which universal conduct assumes during the last stages of its evolution". In any experience from which morality, as we know it, has evolved, there must have been already present a moral and an immoral. As the evolution of physical life implies a germ of life at the first, so the moral evolution implies a moral germ. The earlier forms of moral, as of physical, life are potentially the later; and the lower must, in either case, be interpreted in terms of the higher—must find in it their explanation—not *vice versa*. In other words, the moral evolution implies moral factors, as the organic evolution implies organic factors. Moral progress implies a moral, and not a merely physical ideal, present and operative from the first, though only gradually, and not till the last fully, revealing itself.

(2) Corresponding to this account of the ethical End as social welfare is the evolutionary theory of the "moral sense" or Conscience as "social sympathy". While this view of Sympathy, as primary and direct, is a great advance on those "development"-theories which regard it as the secondary and indirect result of Association, it is yet, as a theory of Conscience, open to the same criticism as the account of the End just considered. As moral cannot be identified with physical Welfare, nor evolved from it, so moral Sympathy

cannot be identified with, or evolved from, mere animal feeling or instinct. As the End is constituted by self-consciousness, and exists only for the self-conscious being, so the feeling which appropriates it, though it may contain a physical or animal element as its ground, is not a mere animal instinct, but an interest in persons. Here as elsewhere, the Evolution-theory does not account for "origins". Once there, Evolution by natural selection may explain the "persistence" of the "moral sense"; but its germ is necessarily presupposed, and even in germ it is, like its object, constituted by self-consciousness.

Further, the Evolution-theory is unable to explain that superiority of the social to the egoistic instincts, upon which it so strongly insists. As mere instincts, they are at once opposed to one another, and on the same level. Accordingly Evolutionism fails, as the old Utilitarianism failed, to bring home the social End to the individual. Its watchword is self-preservation—competition, each for himself, in the universal "struggle for existence". Perfect community or identity of interests is possible only when the common welfare is constituted not physically, but spiritually, that of each not excluding, but including, that of others; and appropriated not by mere physical instinct, but by that Self-consciousness which has constituted it. Hence the inadequacy, in this reference also, of terms borrowed from physical life. The claim of society upon the individual is not to be explained by the figure of the "social organism". Such a category is manifestly inadequate to express spiritual relations. The individual, as self-conscious, as a person, refuses to merge his proper individual life in that of society; the centre of his life is not without, but within. The unity or solidarity of the individual and society must be conceived spiritually, or so that the wider social life which he shares may not destroy, but only be focused and concentrated in the personal life of the individual. Self-sacrifice may have a certain place even in the physical evolution; but it is only as expressive of spiritual relations that we can fully understand the peculiar watchwords of moral, as distinguished from those of merely physical, life—the meaning of self-sacrifice, of losing our life that we may find it, of dying to self that we may live to God and our neighbour.

(3) In the treatment of Obligation, we have the great illustration of our contention that to offer Evolution as an explanation of morality is to eliminate its essential character. "Oughtness," since it cannot be evolved, must be explained away. Accordingly, we have seen that both Mr. Spencer

and Mr. Stephen agree with Darwin in maintaining that Obligation, in the accepted sense of the term, is only temporary, applying to the transition-stages in the evolution of morality, and destined to disappear with the completion of the process. Moral life is in its ideal, they hold, perfectly spontaneous, and is ever tending to become more entirely so. Moral "law" is thus reduced to "law" in the scientific sense; and human life is merged in the life of nature. Morality is simply the "law" of life—the line of its necessary development; what always and necessarily *is*, and ever more fully tends to be, not what *ought* to be, but never is. "Thou *shalt*," the Imperative of moral life, becomes unmeaning. "Thou *must*;" for thou canst not otherwise: it is the very law of thy life; otherwise, thou wilt not "survive". The moral necessity and the physical are one.

Once more we must insist on the impossibility of such a reduction of the moral to the physical. The conception of Duty or Obligation, present in moral life in some form from the first, must remain to the last. It is the very essence of morality; and moral progress, far from liberating man from a sense of obligation, only brings with it a deeper and larger view of duty and a more entire submission to it. While it is true, as Mr. Stephen points out, that moral progress means advance from an external to an internal form of law, and also a growing identification of the moral subject with that which he sees ever more clearly to be his true good, yet the notion of Duty can never wholly disappear. Its disappearance would mean either sinking to the level of the brutes or rising to the divine. To man the moral ideal must always present itself as law—"Thou shalt". As Kant says, to act without a sense of Duty or Obligation does not become our station in the moral universe. It is this characteristic of moral life that separates it for ever from the life of nature. Moral life cannot, as moral, become "spontaneous" or simply "natural". The goal of the physical evolution and that of the moral are not the same. A perfectly comfortable life, that is, a life in which the discomfort of imperfect adaptation to the conditions of life would no longer be felt, would not be a perfect moral life. Thus, as from the non-moral the moral was evolved, so into the non-moral it would ultimately disappear.

What, then, is the net-value of the doctrine of Evolution, as a contribution to ethical theory? It is claimed that it gives us a new view of morality, a new ethical method; that it provides Ethics for the first time with a "scientific" basis.

Of the value of the conception of Evolution, as correcting dogmatic and abstract views of morality, there can be no question. It gives concreteness to ethical theory, by insisting that it shall, before all things, be true to experience. And as a statement of moral experience, as a "natural history" of morality, it is an indefinite advance upon all previous efforts of the kind. But faithfulness to experience is not synonymous with empiricism, either in the moral or in the natural sphere. Moral experience does not, any more than experience in general, explain itself. Accordingly, although the Evolution-theory of morality may be true and valuable as a statement of moral experience, it cannot be said to touch the proper question of Ethics. Its limitations are common to it with all scientific theories. To quote the words of an eminent representative of science, Mr. G. J. Romanes, in the *Contemporary Review*, June, 1888 :—"All that is done by the theory of natural selection, or by any other possible theory of a scientific kind, is to suggest, with more or less probability, a *modus operandi*; but who, or what, it may be that is ultimately concerned in the energising of the process is a question which natural science can never be in a position to answer". Thus limited, a "scientific" view of morality, as of all else, is possible. But, within these limits, an ethical theory is, from the standpoint of science, confessedly impossible. Here, as elsewhere, philosophy, accepting the "scientific" statement at its true worth, that is, as an orderly statement of the facts under investigation, raises its own further question as to the essential nature and explanation of these facts. The facts of moral life having been shown by science to be such, to have such a history, it remains for philosophy to ask, What is implied as their ultimate basis; how is this experience possible; what is the nature of the ideal which moral life, from first to last, is one unceasing effort to realise?

But we are asked by the advocates of the evolutionary or historical method, How else can you discover the nature of the moral ideal than by investigating the historical facts of evolving moral life? And it is true that in a sense we may be said to gather the character of the ideal from the process of its realisation, that in the evolution of morality we may see the gradual manifestation of the moral ideal. But it is the ideal that explains the evolution, not *vice versa*. As in evolution generally, so in the evolution of morality, it is the presence, at every stage of the process, of the End which is fully realised only with its completion, that affords the explanation of the evolution itself. Conduct is defined by

Mr. Spencer as "the adjustment of acts to ends"; and it is always the end that explains the adjustment. If, therefore, there be one final and supreme End, it will explain all lower adjustments, simple and complex, or the evolution of conduct as a whole. We cannot understand the moral evolution, any more than the natural, until we read in it a Purpose or End—a *τέλος* or final cause—immanent in the process of its realisation. Or rather, the moral End must, as Aristotle said, include all others; the moral must be the universal End.

Such a view is indeed implied in much of the language used by Evolutionists. Thus Mr. Spencer speaks of "right conduct" as the conduct of the "ideal" or "straight" man; while Mr. Stephen regards "actual morality" as approximating to a "type" or ideal, which he otherwise characterises as "that underlying code to which actual morality is an approximation," and the evolution of morality as a series of attempts, ever more successful, to solve the problem of the "type" not only of conduct, but of character—in other words, to realise the ideal of human nature. Now it is this Type or Ideal of moral life, of which experience only gives us the "hint," as it were, that the moralist has to investigate; and while experience may be his only teacher as to its actual content, he must view it in its true relation to that experience, as being, not its outcome and result but, its ground and presupposition.

And if the Evolution-theory teaches us to regard human conduct and character, not as standing apart from the rest of the universe, but as sharing in one universal movement, and to regard the end of evolution in general and the end of human life as reciprocally inclusive and not as reciprocally exclusive; it does not teach us that human life is a mere term in the process of nature. It is true, man does not live a separate and independent life. His conduct, even his character, of which his conduct is the expression, take their place among the evolving phenomena of the universe. But moral life refuses to be identified with the life of nature, or to be interpreted in its terms. As a moral agent, man is not under the necessity of nature. Freedom or Will-power—a notion which natural science cannot recognise—is a notion at the very basis of ethical life; and it implies a different attitude in man to the universal course of things, and necessitates a different interpretation of Evolution as applied to human conduct and character. Self-conscious evolution is essentially different from unconscious evolution, and the former cannot be stated in terms of the latter. While all lower

life evolves by strict unconscious necessity, man, as self-conscious, is free from its dominion, and has the power consciously to help on, or consciously to hinder, the evolution. Hence it is that we are at once conscious of the inadequacy of such categories as "adaptation to environment," "survival of the fittest," &c., as applied to moral life. They may find a certain application to its facts, but their value is rather as illustrations than as explanations; they are only imperfect analogies drawn from a lower plane of existence. For moral life, while it contains physical and sentient elements, is in its essence self-conscious or spiritual, and is to be determined, not by natural or biological but, by spiritual categories. This is not to say that the theory of Evolution is to be abandoned when we approach the consideration of moral life, but only that here, as, indeed, ultimately everywhere, the evolution must be conceived, not naturally or empirically but, spiritually or rationally.

As to the ethical End, we have already seen that the theory of Evolution has no necessary logical connexion with Hedonism. What a fair interpretation of evolution suggests as the End is not Welfare in the sense of *Well-being* or happiness, but rather Welfare in the Aristotelian sense of *Well-doing* or *Well-living*; not a state, but an activity, a life, due fulfilment of all the functions which together constitute man's "life". And the proper life of man must be determined by his proper or peculiar function; *his* life is not that which he shares with the lower animals—a merely physical or sentient life—but that which is peculiarly his own, the life of reason, the realisation of his proper, which is his rational, self. This is the "type" of life which is ever seeking realisation, which alone is worthy of preservation and development; and only by recognition of it as the goal can we understand the evolution of morality. If, even in the case of unconscious life, the ultimate reference must be to the so-called "self" or organism rather than to the environment, which apart from the organism has no significance; it is still more obviously so with self-conscious or spiritual life. Even Darwin's "strongest" and "most persistent" impulse or instinct is not the ultimate here. Beneath all stimuli from without and impulses from within, what "persists" and demands realisation is the rational total Self; and in the persistent urgency of its demand is to be found the secret of moral progress, whether of the individual or of the race.

III.—ON SOME KINDS OF NECESSARY TRUTH. (I)

By LESLIE STEPHEN.

WHEN we speak of an event as necessary we properly refer to the limitation of a supposed possibility by some independent condition. A man's death is necessary when he is placed on the guillotine and the axe allowed to fall, because we introduce a condition not already given by 'man'. The guillotine is an accident relatively to man, and implies coercion or an external condition. But we extend the same phrase to cases in which the condition is not really independent; though not explicitly given. 'Death is necessary for all men' means that mortality is already implied in humanity; although the attributes explicitly stated do not include mortality. How we come to know this or to think that we know it is another question. Finally, if the condition is already explicitly given in the original statement, the 'necessity' coincides with an identity. It would be mere tautology to say 'man is human,' and quite needless to say that he is 'necessarily' human. In the last two cases the coercion vanishes, although the 'necessity' remains. In any case, then, the statement of necessity implies, first, the assumption that something exists, and next, that it is limited by some condition, which if entirely independent implies coercion, and if implicitly given in the existence of the thing itself implies only certainty, or 'self-coercion' if the phrase be not simply a solecism.

The same applies to what we call necessary truths. One truth may be limited by another, when the conclusion follows if both are supposed applicable. If circles have certain properties and straight lines certain other properties, points which are both in a given circle and a given straight line are limited by both conditions. But the necessary truth may be so related to the first truth that if one is true the other is true, as a point has certain properties from being in a given circle. Then we shall have a certainty which, as before, may become a mere identity if the second truth is involved in the first not only implicitly but explicitly.

Thus I should say that necessary truth always implies a postulate. Some statement is true (or is taken as true); therefore another which is precisely equivalent to it is true. Or it is only rational to say 'because' when it is an answer

to 'why?' If we say a thing is *because* it is, we are uttering a purely meaningless phrase. To every 'must' there is an 'if'. There is no such thing as a truth which is absolutely self-supported. To say that the 'existence' of anything *per se* is necessary, is meaningless. A thing is necessary if its conditions exist, or *vice versa*; water implies hydrogen and oxygen in given proportions, and hydrogen and oxygen in the same proportions imply water; but the statement itself, 'there is water' or 'there are hydrogen and oxygen,' must always imply an independent or ultimate datum of experience. In the same way, no truth is necessary by itself, or except on the assumption that it is equivalent to a given truth. Taking this for granted, Mill seems to have inferred that there could be no such thing as a necessary truth. For he also supposed that the equivalence of two truths implied their explicit identity; or that if truths were necessary, they must always be nugatory. That is, we should only be able to say, 'if A exists, then A exists' or 'A is A,' a proposition which certainly appears to be mere tautology.

The right conclusion seems to be different. Propositions abound in which the identity of import is consistent with a difference in form. In Algebra we, of course, gain nothing by a mere identity, $x = x$. Nor do we gain in one respect by any equation which turns out to be identical in the sense, that it is true for every value of x ; as, for example, that $(x + a)^2 = x^2 + 2ax + a^2$. That statement tells us nothing as to the particular value of x , because it is true for every value of x . Yet, of course, substitutions of this kind, of the sum for the evolved series, are essential to all mathematical investigations. Whatever value of x will satisfy the equation in one form will satisfy it in the other; and it is precisely because this is so, and is supposed to be necessarily so, that the proceeding is valuable. For, though x is not more determined 'in itself,' that is, is subject to no new condition, by the new form it may be more easily determinable 'for us'. The whole aim of mathematical analysis is to discover such processes, by which our implicit knowledge may be converted into explicit knowledge. In other words, a proposition may be identical with another in so far as it states precisely the same truths, and yet it may differ in form so as indefinitely to increase our knowledge. On the other hand, it follows that no such conversion extends the sphere of our knowledge. If one term of the equation holds the other holds; but this tells us nothing as to the validity of the first statement, and, by its very nature, cannot enable us to get any further. It

only makes the assertion more convenient to handle; it does not enlarge or limit it. Since identity of import is compatible with difference of form, necessary truths may not always be nugatory; but the equivalence implies that no condition is stated by the dependent truth not already implied in the assumed truth, or that they must always be of the same order of generality.

It is not difficult to suggest cases in which the same may be said of various concrete statements. There is the familiar case of genealogy. If John is the father of Thomas, it is a 'necessary' consequence that Thomas is the son of John. The same relation is asserted in both cases, and one cannot be denied without denying the other. The only difference is in the order of thought. But we all know that, although the propositions are identical in import, they are by no means equivalent for purposes of reasoning. Sir Gilbert Pickering was the son of the sister of Dryden's father by the eldest brother of Dryden's mother's father. What relation was Dryden to Pickering? A moment's thought shows that they were both first cousins and first cousins once removed. But a moment's thought is necessary, and much more puzzling questions constantly occur. We have to put the relationships into parallel series, both following the same order. The links of the chain can be put together, and can only be put together in one order; but when they are presented to us in confusion we have to sort and arrange them. The necessity in these cases results, of course, from certain assumptions. We assume the relationship of parent and child to be unique; it does not, like master and servant, admit of degrees. We assume that everyone must have two and only two parents, and that the relationship cannot be reciprocal, but implies a series ascending and descending. The inference is necessary so long as these conditions are satisfied and no longer. Therefore, on the one hand, the truth would hold if we found (as we perhaps might) another set of relationships satisfying the same conditions and justifying precisely similar inferences. It can therefore, on the other hand, tell us nothing as to any other circumstances implied in this particular relationship, its physiological or moral peculiarities for example. And, of course, the truth of these assumptions is only known through inference.

I will mention one other case, which may suggest some analogies hereafter. Economists tell us that the value of anything in terms of another means the rate at which they exchange in the market. It follows necessarily that a gene-

ral rise or fall of values is impossible. A rise of A in terms of B is a fall of B in terms of A . Yet this almost identical proposition is constantly denied by implication. It is common to find this self-contradictory phenomenon assigned as a cause of commercial depression or activity. The confusion is connected with an invaluable logical artifice. We express all values in terms of money to facilitate the comparison of different values. Price, therefore, is a measure of comparative value, and is regarded as a measure of absolute value. Prices may rise or fall in general, and therefore we assume that value may rise or fall. There is now a single commodity (say) gold of which the price is necessarily constant, or rather of which price cannot be properly predicated; for an ounce of gold is of course worth, inasmuch as it is, an ounce of gold. Instead of the proposition that a general rise or fall of value is impossible, we have now the proposition that a change in the price of gold is impossible. Gold has an exceptional position, and this leads us to neglect or deny the fact that buying and selling are the same thing regarded from different sides; whence arises a whole crop of pestilent fallacies. Here, as in the previous case, we have a necessary truth involved in a set of empirical truths. What is true of the relation of value may be true of other cases than that of commercial exchange. And the general and necessary truth can tell us nothing by itself as to the particular case so far as it depends upon other truths. We cannot say, for example, in virtue of this truth, whether a rise or fall in prices is generally good or bad for trade, though we can exclude certain fallacies which are frequently introduced to confuse the subject.

I will not pursue further these remarks, which are perhaps sufficiently obvious. I merely wish to point out that where a relation exists capable of being contemplated from two sides we may arrive at statements one of which implies the other and yet does not make the other superfluous. Such a necessity may be admitted consistently with the admission that all truths are ultimately contingent. The necessity corresponds to the connexion between the links of the chain; but that connexion cannot determine the suspension of the chain itself. There must be some peg upon which it ultimately hangs different from its internal connexions. Given a truth, we may evolve from it another which is the same in a different form, or an indefinite number of others; but in all cases whatever we must ultimately get back to some postulate which does not depend upon such a connexion. When it is granted, the equivalent propositions are necessarily true;

but the equivalence cannot prove that either is true. The equivalence implies also that the dependent proposition can assert neither more nor less than the postulate, and therefore that it cannot enable us to distinguish between the various cases which are covered by the original postulate. It must be true of all the x 's, not of this or that x in distinction from others.

The most interesting case is that of geometrical truths. If we ask, what in this case is the assumption upon which the necessity is founded, the obvious reply is that we assume space. We all believe, as a fact, in the existence of space in some sense; and we believe it because it seems to be directly given in our perceptions. But there is apparently no meaning in speaking of the existence of space as necessary. We cannot give any reason why it should exist, and there is no contradiction in supposing it to be annihilated. Space is in some way a postulate, or corresponds to a fact or facts only known by direct experience. We cannot regard it as something which depends upon conditions or involves conditions. Consequently, according to Mill, it was one of two simple existents of which we can only say, 'it is' or 'it is not'. But the difficulty occurs that in assuming space we have already assumed implicitly the whole complex system of propositions which are ultimately evolved as geometry. If we regard space as a kind of simple thing, incapable of any further analysis, we have not the germ of a system of relations. That germ exists when we have a single relation capable of being viewed in two ways, and therefore of giving rise to truths differing in form and identical in import. But here we have an ultimate simple atom instead of a possibly fertile germ. Mill, as it seems, tried to explain this by treating lines as things which, though incapable of further analysis, possessed properties determinable by experience. We could discover that two straight lines could not enclose a space by trying the experiment, though we could not discover it from the nature of a line itself. In doing this I think that he laid himself open to the attack so forcibly put by Prof. Green, that he had already assumed space when he spoke of a straight line, and consequently that the supposed construction of geometrical axioms was illusory. Without going over that argument, I fancy that everyone would be prepared to admit the failure of Mill's attempt, and to regret that he had not studied the theory of Kant, which would have opened his eyes to the weakness of his method.

I shall not attempt to criticise the theory of Kant; but I must indicate at least one difficulty which I feel in regard

to its application. I admit that the power of evolving the great system of geometrical truths from certain axioms implies the presence of an intellectual element which somehow binds together the intimations of sense, and gives the ultimate germinal principle of all subsequent deductions. This must 'somehow' enter at a period antecedent to the construction of the straight line, which we assume as ready-made. But what is the 'somehow'? If I am told that the mind is to the sensations as the mould to the matter, I am still in a difficulty. If the matter counts for something, we still have to trust to experience, for we cannot tell *a priori* what will be the relation between the two elements. If it counts for nothing, we are apparently forced to construct space out of logic, that is, from principles which are equally applicable to all other relations. The condition already noticed is not fulfilled, and geometry would be identical with logic. I am especially perplexed when, in this relation, the sensations are treated as mere transitory, fleeting, arbitrary entities, incapable of affording a satisfactory basis for any kind of knowledge whatever. If by the sensible we mean the residuum left in our experience after abstracting from it all that makes it coherent, it must be admitted that we have very unsatisfactory materials for any kind of construction. Yet we admit that all our knowledge of the external world somehow comes through the senses. If I could neither see, nor hear, nor feel, nor touch, my knowledge of external things would be very limited. And, moreover, every geometrical proposition does, in fact, make statements about the senses. Certain sensations make me aware of the presence of a sphere, and others of the presence of a cube. Therefore every statement about the properties of a cube or a sphere tells me something about my sensations. However fleeting and transitory they may be, they clearly conform in some way to necessary truths. Why, then, should it be impossible to evolve the truths from the sensations? Sensations, like everything else, must have their 'laws'. Why cannot the 'laws' be disentangled from the sensations instead of being imposed upon them from without? The difficulty, I think, is something of this kind. A straight line, a plane and an angle seem to be immediately recognised. By combining them in various ways all geometry is evolved. But if we try to exhibit the axioms from which we start in terms of pure sensation we do not come to simple elements, but to complicated and indefinite combinations of sensation. A concrete straight line does not correspond to a single distinct sensation, always present when it is present, but rather

to a group of sensations. We can define the sensations corresponding to a particular geometrical figure, but we cannot invert the process and isolating a given sensation say that it corresponds to a geometrical figure. Therefore, it is inferred that the intuition of space and particular modes of space is not a product of modes of feeling, but corresponds to an independent intellectual process which moulds the presented sensations. Can we suggest any other way in which the origin of the primitive axioms and conceptions can be explained, and regard the geometry as somehow evolved from the sensations themselves? That is the problem upon which I propose to say something.

I begin, however, with a few remarks upon other classes of so-called necessary truth. We have, first, the truths which may be called purely logical. They are such truths as might be evolved from a simple proposition irrespectively of its contents. When I say that a thing is, I deny that it is not; and so forth. Now, without going into any metaphysical or logical discussions as to the legitimacy of this mode of treating a simple assertion, I shall only say that, according to my view, it may be possible thus to evolve a number of what may be called necessary truths. It may be shown that very complex modes of affirmation or negation are equivalent to very simple ones. If, according to the ordinary rule, two negations make an affirmation, we might go on to say that an even number of negations make an affirmation and an odd number a negation; and so forth. But, on the other hand, however complex or elaborate might be the series thus evolved, they could not take us beyond our original statement. We should discover that a very roundabout assertion was an exact equivalent of a very simple assertion; and if in any case the roundabout form happened to be suggested by our reasoning or observation, the power of reducing it to the simpler form given by our formula might be very convenient. But we should blunder if we imagined that by any such process we could get to any knowledge not implicitly given in the original simple assertion, or add any strength to that assertion itself. If I know that a thing is, I can state that knowledge in a variety of ways; but the knowledge is not itself extended by being twisted into various shapes. If the statement that various forms are precisely equivalent is to be called a necessary truth, I have no particular objection; but this does not in the least help us to make a single true proposition, or to dispense with some primary starting-point. Nor do I

understand that as a fact the ingenuity of logicians has taken us to any very valuable conclusions of this kind.

We come to the first great system of necessary truths in Arithmetic. It is impossible to deny that these truths have at least the appearance of being necessary. The truth that twice two is four seems to belong to an altogether different class from the truth that crows are black or man mortal. Mill, indeed, made some show of an attempt to argue that even this was an 'empirical truth'; but I doubt whether he persuaded even himself, and his remarks need not be examined. Nobody, I believe, has yet tried to construct an imaginary arithmetic. I am content to believe that the truths are, in fact, 'necessary,' and I will only ask briefly what is the reason of this conviction.

What, in fact, is meant when we say that our old friend, $2 + 2 = 4$, is a necessary truth? We mean, I presume, that four things are also two pairs of things differently regarded. To say that there are four things and to say that there are two pairs of things is to make two propositions identical in import, though differing in form. We convince ourselves, again, that this is true by a simple reflection. In counting any set of four things I have counted every set of four things. I count a set of tickets or 'counters'. Regarding these as affixed to certain things or bundles of things, the proposition is equally true of the marks and of the things marked. The one condition required is that each of the marked sets should be apprehended as a distinct unit for the time of counting. This character will not be affected, therefore, by supposing them distinguishable in some other respect. If two wafers are red and two black, they are still four wafers, made of a pair of red and a pair of black. The additional mark does not affect their character as units. The whole number, therefore, may be divided into subordinate groups without affecting its number as a single group. The very name 2 seems to imply this; for it means that the things may be indifferently regarded as two units or as a single pair. And what is true in one case must be true in all, for the same set of pigeon-holes will still hold the same marks, and therefore give the number of the things marked. There are occasions when one has to call these reasons into consciousness. I remember a period of my life when I was greatly vexed by the difficulty of producing the same result by an upward and downward addition of a column of figures. I was tempted to think that the result might really be affected by changing the order. I could not dispel the

impression by experience, for experience tended distinctly to confirm my scepticism. I had to reflect that each number might be represented by a row of concrete sovereigns, and that if I counted right, that is, counted each sovereign once and only once, I had counted the very same things. The subordinate grouping could make no difference to the whole group. Assuming this general principle, and applying it systematically, we get all the rules of arithmetic and algebra. I may perhaps just observe that the case illustrates a principle sometimes overlooked. It is not the same thing to say that a statement is probably true and that it is probably necessary. It is sometimes suggested that the necessary truth shades off by degrees into the merely probable, because we are more certain that $2 + 2 = 4$ than that $99 \times 99 = 9801$. But we are equally certain in both cases that what is true once is true always, because we assume the things counted to remain unaltered, or to correspond to the same set of counters. Perhaps we should say that some infinitesimal degree of uncertainty attaches even to the simplest proposition, $2 + 2 = 4$; but we are equally sure that if it is true of one case it will be true of all. Further, I may remark that a numerical proposition, in virtue of its generality, fails also to tell us by itself anything more of the properties of the things counted. Since it is true of every case—of four horses, or four hippogriffs, or four syllogisms—it can give us by itself no property in which horses differ from syllogisms or hippogriffs. Since, on the other hand, it applies to every possible object of thought, it may lead to important truths when further qualities are added: Dugald Dalgetty regarded the rule for extracting the square root solely as a means for arranging a regiment. When the units are soldiers with known qualities, we can determine by numerical processes what is the best way of resisting a charge of cavalry. But any 'ideas'—immediate objects of the mind in thinking—may be equally counted, and only become real or unreal, objective or subjective, in virtue of some later determination. Whatever they tell us is consistent with any other determination whatever; and the necessity is limited by the simple assumption that the same units are taken as constituting the number. This is the 'if' which justifies the 'must'. Add the certain qualities, and as the object must still conform to the arithmetical truth, we may reach the most important truths; but these propositions are not deducible from the truths taken by themselves, but from the something else which is added in each particular case.

The difficulty really occurs when we get to the necessary truths of geometry, which appear to be in some sense true in the highest degree of the objective world and true of it alone; and which therefore seem, on some theories, to imply that we are in some mysterious way provided with a kind of knowledge which yet cannot be educed from our own experience. Assuming that we know something of the shape of outside things, independently of touching and feeling and seeing them, we infer that the knowledge is implanted in us which arises from a purely intellectual element, and that therefore we are justified in inferring that we possess other kinds of transcendental knowledge.

Before making any remarks about judgments of space, I will say something of the comparatively simple case of Time, which is so closely analogous, and seems to indicate a similar intellectual process.

I can say nothing whatever about the ultimate meaning of time any more than about the ultimate meaning of number. If anybody can in any intelligible sense 'explain' time I shall be glad to hear what he has to say; but I am content to admit my own utter inability even to understand how any explanation is possible. It is a fact that all events are regarded as occurring at certain points in a continuous series, and as having a certain definite duration. All that I wish to ask is, how from this vague impression of duration and succession of a 'before' and 'after' in time we come to conceive of pure time as something independent, uniform and measurable.

We regard any continuous events as synchronising or overlapping or separated by a definite time-interval. I wake (let us say) as the sun rises and go to sleep when it sets. My waking period coincides with the period of the sun's course above the horizon, or, if I sit up longer, overlaps it, and so forth. I can so far have an intelligible meaning in saying that of two processes one takes a longer or shorter time than another. When we compare two periods which do not even overlap we have apparently to take a further step. No two periods can be brought into actual contact. We must make some tacit reference at least to a common measure when we compare their lengths. What is the measure? What precisely do I mean when I say that to-day will be just as long as yesterday, or that the 31st December will be shorter than the 30th June?

I suppose that the first step must be the assumption of some concrete standard. We take for granted that a day is

a constant in time. We afterwards come to measure by months and years, which represent, in the first place, a certain series of definite changes in the position of the sun and moon, and also a constant number of days. This is natural, because a variety of functional changes in ourselves and in the various objects with which we are concerned synchronise with the changes in these periodical phenomena. We are our own clocks at an early stage. Our hunger tells us that the sun is high, our sleepiness that he is near setting, and so forth. Things, as a matter of fact, correspond in such a way that in a vast number of the phenomena which most excite our interest we do this or that, get up and lie down, eat and drink, go out hunting, or plough and sow at the time when the sun, moon and stars are at certain stages of a continuous periodical process.

So far the reference to time may be implicit only. We need not distinctly separate the event from the time in which it happens. I have assumed that a day, or rather a day and night, is a constant. (The variation in the length of the day might puzzle an Eskimo; but Paradise was nearer the equator). But why do I make this assumption, or rather what is it? It may be vaguely suggested by memory. On looking back to the past series, each day seems to represent an equal stage. The same series of sensations has occurred and has been divided into similar parts. Waking, hunger, sleep represent one series, and the other series is made up of the sensations which I interpret to signify the varying positions of the sun and the recurrence of harvest and winter. The two are so related that a definite set of changes in one corresponds to a definite set of changes in the other. From one, therefore, I can argue to the other. I am sleepy, the sun must be setting; or, the sun is setting, I shall go to sleep. But the coincidence is vague, inasmuch as it only represents a kind of average or normal coincidence, from which there are divergences in almost every particular case, and there are as yet no clocks or thermometers. In the next place, it seems to be so far a matter of indifference whether I take one of these series of sensations or another as the standard series; whether I hold that my appetite is more active or the sun slower in its movements. One represents a series of sensations of hunger and thirst, the other of light and heat. Why do I, or why did my remote ancestor, consider that the sun gave a better measure than his stomach, which was after all closer to him, and represented a more interesting set of feelings? And what is the nature of the supposed change in one series of

sensations which reconciles the conflicting inferences in these cases? Now it is, I dare say, easy to suggest some reasons why even a Robinson Crusoe should reckon rather by the sun than by his stomach. The various positions of the sun give a more definite and recognisable series of marks. 'The sun is touching that hill' is a more distinct statement than 'I am sleepy'. And many other events connected with the sun's position, the coming out of animals, and so forth, cause me in numerous actions to go rather by this measure than by the other. But as soon as Robinson Crusoe gets his man Friday, or, in other words, as soon as there is a society as well as an individual to be considered, this becomes not only convenient but indispensable. We combine operations, and must have a common measure. Crusoe and Friday must agree to meet, not when their stomachs are craving, for neither can tell the state of the other's stomach, but when the sun is on the horizon—an event which is common to both. We have therefore to fix upon a series which is represented in the external world. And as soon as we do this we have to make another assumption. We must regard it as an axiom that, if our experience coincides now and coincided at another fixed point, the interval has been the same for both. We parted and met; you have been reading *Ivanhoe* and I have been reading *MIND*. The time, therefore, must have been the same, although, judging from our sensations, it has seemed long to you and short to me. We say that time passes quickly in study. Literally taken, the phrase is a solecism. Time cannot pass quickly or slowly for precisely the same reason that gold cannot rise or sink in price. Time is the measure of quickness or slowness by its definition. Quickly or slowly mean quick or slow in respect of time. A train which passes over a mile in a minute is quicker than a snail which passes it in a month. But it is meaningless to say that a minute is itself longer or slower than another minute; for a minute means a fixed measure of time. What we mean is, of course, that our sensations suggest different inferences; that you, in the case supposed, would guess the clock or the sun to have moved through a larger arc than I should have supposed. So much is assumed when we have once got a common measure; when we have agreed to reckon time by one of these periodical series of changes—the movement of the sun in the heavens, for example, which is common to you and to me. This assumption is involved in the process by which an external world is constituted. We have now a series of

events supposed to take place independently of you and me, or to be necessarily the same for you and me, and we refer all other events to their position in this series. But, again, as we have thus brought ourselves into co-operation, we are now able and we are constantly compelled to make allowance for subjective error. If one set of sensations leads to an inference incompatible with that suggested by the other, we are forced to set one down as erroneous. From the point of view of the individual there is no necessity—though there may be some convenience—in uniformly preferring either or any series to the other. It is just as easy to say 'the sun is rising slowly' as to say 'my appetite is growing rapidly'. The necessity of choosing is implied in the adoption of a common measure. We must go by the sun which we both see, not by my stomach, which is imperceptible either to you or to me. And, moreover, when we have once agreed upon this, it must be observed that it is always possible, and therefore always necessary, to make the correction. Any correction, however great, can always be applied. Rip van Winkle, after his twenty years' sleep, or the dervish who imagined centuries to pass whilst his head was in a basin of water, could regain their places in the world as easily as I when I have nodded for an instant at a lecture, by simply assuming a personal error. They would be forced to do so by the necessity of conforming their experience to others, and they always could do so. It is not wonderful that we always have the same time, for we make our time by assuming it to be the common time; and we at once discard every apparently inconsistent experience simply because it is inconsistent.

But we have still a further step to make. We have assumed a common measure—the movement of the sun, for example; but how do we know that this measure is uniform, or what do we mean by asserting it to be uniform? We may guess in a general way that this common measure is uniform. One day seems to be the same length as another day. It is divided into definite parts by the position of the sun, and if it generally takes a day to walk so many miles, we may infer that one mile will be walked while the sun is describing a proportional part of his daily course. We have thus a kind of concrete time. We can say, that is, that things occur at certain times; meaning that they occur at certain definite points in an assumed standard series. But what do we mean by regarding this series as itself uniform, or by saying particular fractions of it take equal or proportional parts of time? There seems to be some reference to

time as separate from the events which take place in time. I remember, for example, a difficulty which perplexed me when I was trying to learn astronomy. It was constantly turning out that events which I had supposed to be regular were varying in respect of time. I comforted myself, however, by observing that the rotation of the earth seemed to conduct itself with a commendable regularity. So long as I could believe that 24 hours meant precisely the time in which the earth got itself exactly round, I was happy. I had a firm concrete measure to hold on by. At last I was told that this, too, changed slowly. I was, I confess, bewildered. It seemed as though there was no longer any real time at all. The answer to my difficulty was, I presume, that it makes no difference whether any given events should be exactly periodical so long as there is a definite time-relation. If the year 1888 differs by an assignable fraction from the year 1887, the statement is as intelligible as the statement that they are precisely equal. The series 100, 101, 102 will do as well as 100, 100, 100. But, still, how can we know of this relation? We cannot lay one year by the side of another; and if the time-standard is arbitrary, why should we not make the years equal as a captain of a ship makes it 12 o'clock? That would be a more convenient assumption. The answer is enforced by physical considerations. We know that the rate of the earth's rotation varies because we know that the tides must retard it. But how do we know this? It appears to me that this involves another postulate. It is virtually the assumption that two things may differ in respect of time alone. We have to define time as something by itself inoperative. The fall of a pendulum is taken always to occupy the same time. If all the conditions of the fall are identical, we assume that the rate of the fall will be also identical. If there is any absolutely uniform process, it may differ in respect of more or less duration whilst remaining otherwise absolutely unchanged. At any given moment of time it will be precisely identical with itself at any other given moment. If not affected from without, it will achieve the same results in the same successive periods. In order, therefore, to disengage the time-element, I must make the assumption of uniform action or conceive of processes as remaining identical through time. This is equivalent to defining a fixed period of time as that which will be occupied by an event identical with another throughout an equal period of time. Thus we reach a conception of abstract time which is only abstract in the sense that, though not

separated from all events, it is uniform for a perfectly uniform process.

This seems to be a postulate, because it cannot be in any way proved by experience. It is impossible to *prove* that similar events will always take the same time, because I cannot bring the two times together. I might show that two similar events, *e.g.*, dropping equal (or unequal) balls from a height will synchronise ; but this might only prove that the variation of time (if time could vary) was the same for both ; and, moreover, if we found that the events did not synchronise, we should at once infer that they were not precisely similar. If two bodies fell at different rates, we should explain it, I suppose, in the last resort, by assuming that the force of gravitation acted differently in respect of different places and bodies. We could not infer any specific difference in the time in which the two bodies fell. We should accuse our senses or suspect an error in our observations. And some such assumption in a latent form is no doubt implied from the first. As soon as we measure two events in respect of time, we assume that they are comparable in time alone. The precise formulæ are gradually rendered explicit in the effort to make our experience coherent. The only sense in which experience teaches us the truth, is that the whole system does in fact produce a body of organised and verifiable truth. If the conditions under which we were placed had been much more complex, and had presented us with no approximately uniform periods in concrete experience, we should have been proportionately slower in rendering our primary assumptions definite and distinct. The assumptions are forced upon us in the process of organising our experience ; and the same process which enables us to conceive of time also enables us to bring out distinctly the conceptions of space and of the uniformity of nature. Thus, from the vague assumption that things may synchronise or overlap, we have the conception of time considered as the relation between two processes in this respect. Though we speak of 'time' as of 'value' by itself, we always imply a relation, though a relation between any two periods whatever. To enable ourselves to speak of this conveniently, we take a standard-series as we take gold to measure price. As soon as we share this conception with others, the standard-series must be part of the objective world ; that is, a part of the series which is common to everyone. Finally, to regard this series as itself uniform, we have to make the assumption that time in itself can be so separated from events that precisely

similar events may occur at different times, and will then occupy equal periods. Each step of the process is forced upon us in trying to obtain consistency in our various impressions, and therefore a common measure of many relations. The only 'proof' of our correctness is the general harmony of our experience which results.

It only requires to be added that we do not thus arrive at any necessary truths peculiar to time-relations. All arithmetical truths are applicable to periods of time as to other things. Four years are two pairs of years, as four marbles are two pairs of marbles; because at any given instant of time I can somehow think of four parts or succeeding periods. The only necessary truth would seem to be the statement that time cannot run back. But as abstract time has no more existence than abstract value, always implying a comparison of two, though of any two, processes, this seems to come to no more than the statement that events cannot repeat themselves. This, however, is a merely empirical statement. If, as one of Marryat's characters maintained, everything runs in cycles, so that the captain will be threatening the coxswain 26,000 and odd years hence as he did 26,000 and odd years ago, it appears to me that it would be indifferent whether we asserted that time would recur or that the same events would recur. We cannot prove that they will not. But in any case we do not in time, as in geometry, to which we may now pass, get a new system of necessary truths.

(To be continued.)

IV.—RIEHL ON "PHILOSOPHICAL CRITICISM".¹

By Prof. R. ADAMSON.

THE rich Kantian literature of the last twenty years has produced no work of greater significance than Prof. A. Riehl's elaborate study of the Critical Method and application of it to questions of general philosophy. *Der philosophische Kriticismus*, mentioned but not before examined in MIND, is much more than a contribution to the better understanding of the Kantian philosophy. Though resting upon a careful and highly successful historical interpretation of the Kantian system, the work has importance for the most part as an attempt to apply the fundamental conception of the critical method, purified from all extraneous matter, to the general problems of the theory of knowledge in the first instance, and in the second instance to the concrete problems that have at all times formed the staple of metaphysical discussion. It would not be altogether inaccurate to say that the broad divisions into which this application of the critical method naturally falls correspond to the familiar rubrics of the Kantian *Kritik*. But the treatment is characterised by so much freshness and originality of conception, so comprehensive an insight into the relations of philosophical and scientific problems, and so close a reference to the general tenor of modern science, as to render it in no sense a mere re-presentation of the work already achieved by Kant.

In regard to the work generally, it is unnecessary to say more than that at all points the author exhibits completeness of knowledge and maturity of philosophical reflection. The work is that of a genuine thinker who has spared no effort to render it adequate to the far-reaching importance of the problems involved. But an expression of special thanks may be allowed for the great excellence of Prof. Riehl's style. He is everywhere lucid and intelligible, firm and precise in the use of terms, and a master in the art of condensed logical exposition. The matter he has to offer

¹*Der philosophische Kriticismus und seine Bedeutung für die positive Wissenschaft*: Bd. i. "Geschichte u. Methode des philosophischen Kriticismus," 1876; Bd. ii. Th. 1, "Die sinnlichen u. logischen Grundlagen der Erkenntniss," 1879; Bd. ii. Th. 2, "Zur Wissenschaftstheorie u. Metaphysik," 1887. [For convenience, the last part shall be cited as vol. iii.] Leipzig: W. Engelmann.

may have its difficulties; the manner of presentation is invariably an aid rather than an obstacle to comprehension.

A work of so extensive a range as Prof. Riehl's, embracing in some form all the problems of theoretical philosophy, cannot in any critical survey be satisfactorily dealt with on all its sides. As its main significance may be thought to consist rather in the original treatment of general problems than in the historical review of pre-Kantian and Kantian philosophy on which the treatment is based, all that falls within vol. i. may meantime be dismissed with a general indication of its contents. The author, holding that philosophy is practically identical with theory of knowledge (a brief formula of which the work itself is the expanded interpretation and of which the full bearings will presently be noted), finds in Locke's *Essay* the first great contribution to the establishment of the critical method and its principles, in Hume an important though inadequate and one-sided development of the same, and in Kant, with much imperfection and some important defects, the matured consciousness of the nature and consequences of the method itself. Sufficient notice is at the same time extended to such minor preparations for the Critical Philosophy as may be thought to have influenced the final statement of it in Kant's work,—in Wolff, Lambert and Tetens. The interest of the historical review centres in Hume and Kant. Of the former, Prof. Riehl's account is one of the best and most thorough known to me. It is distinguished by its completeness and fairness, and, in particular, it devotes the attention and care the matter deserves to Hume's elaborate application of his fundamental principles to the criticism of mathematical science. The second part of the first book of the *Treatise* has experienced undeserved neglect at the hands of historians of philosophy, who have generally contented themselves with accepting as adequate representation of Hume's views on mathematics the brief, misleading and commonly misconceived expressions in the *Inquiry*. On some points in Prof. Riehl's interpretation of Hume on this matter there may be differences of opinion, not without importance in so fundamental a question; and it may be doubted whether, in the satisfaction of finding so much of the critical method in Hume, he has laid sufficient stress on the peculiar imperfections of the foundation on which Hume's doctrine rests; but such possible differences and doubts demand a longer historical statement than can here be accorded to them. In like manner, there must meantime be left aside any examination of the most important section of the historical

volume, that in which the essence of the critical method as conceived by Kant is formally expounded. What Prof. Riehl understands this essence to be will appear in the statement of his own views, which are developed from it: with what justice it is assigned to Kant, and what is the worth of the adverse criticism directed upon certain portions of the Kantian system, not in Prof. Riehl's judgment compatible with it, are questions deserving separate and detailed treatment. The rock of offence is found in Kant's mode of viewing things-in-themselves and noumena, a matter sufficiently fundamental not only for interpretation of Kant, but for philosophy at large; and, though it would be an inadequate representation of Prof. Riehl's view simply to class him with the many who have accepted the apparently negative results of the Kantian criticism of knowledge and rejected such positive addenda as Kant seemed to make in regard to these problematical entities, the reference may be allowed here as a provisional indication of the historical view taken by him. His view regarding the question itself will become sufficiently apparent in the statement of his theory of knowledge.

The proverbial danger that lurks in general statements perhaps nowhere more easily conceals itself than in those introductory expressions with which a philosophical investigator defines the point of view to be occupied by him and the problem he proposes to himself. Acute appreciation of the danger is no guarantee of success in avoidance of it; the historian of philosophy has to record the failure of many a well-intentioned effort to shake off all entanglements of presuppositions and to start from absolutely simple and unambiguous fact, failures due solely to the important yet readily ignored consideration that simple and unambiguous facts are not given with these desirable qualities, but have to be reached by the long and slippery path of reflective analysis. A standpoint, as the Germans phrase it, is not the beginning but the end of the journey; a problem well put is, in philosophy, much more than half the solution of it.

These precautionary remarks are by no means intended to convey any covert censure on the manner in which Prof. Riehl has performed the task of formally acquainting the reader with the general nature of the philosophic position occupied by him, with the conception he has formed of the nature and functions of philosophy, and with the relations in which his own method and aims stand to those of other thinkers, philosophic in the narrower sense or scientific. But they are intended to account in a general way

for the particular difficulty I experience in convincing myself that I thoroughly comprehend the author's drift in many of his introductory statements, and to form a general plea for exculpation if it should turn out that in some essential points I have failed to do justice to his meaning.

"Philosophy is the science and criticism of knowledge" (iii. 1). Its business is to unfold the essence of knowledge, to determine the significance of experience and science. Logic, which has also to do with knowledge, is for the most part descriptive, and is differentiated from philosophy by absence of that critical reference to the reality of knowledge which is fundamental and characteristic in philosophical analysis. Psychology is a branch of concrete or positive science, distinct from and related to philosophy in exactly the same general fashion as the positive sciences of nature.

Philosophy, then, is no new way of knowing objects; it increases in no respect the domain of ascertained facts which positive science, natural or mental, may bring before us. Philosophy is no *Weltanschauungslehre*; it has to follow science, and may be regarded as the self-consciousness of scientific thinking.¹

The notion of knowledge, then, is the foundation on which the whole rests: with a definition or description of knowledge, it is natural that the work should begin. Accordingly, in the introductory chapter of the second volume, Prof. Riehl lays out his formal statement of the characters essential to knowledge and of the ultimate assumptions involved in the fact or act of knowing. The author is well aware that great part of such preliminary matter must await its full justification from later, more developed investigations into the contents of what is known. He evidently does not share the view that a theory of knowledge can be constructed without the aid of assumptions, or that by dint of mere meditation on the idea of knowing satisfactory insight into the problem of knowledge is to be attained.

Knowledge in the special sense, *Erkenntniss*, is characterised as *mediate*, i.e., involving a movement of thought from one content apprehended to another—a movement even if the result be only a transformation of the initial content; as accompanied with consciousness of the process involved and with reflection; and as having the concomitant feeling

¹ Vol. iii., c. 1. I am not able to see the connexion between this view of theoretical philosophy and the brief account given (pp. 20-21) of practical philosophy. It appears to me that all the questions of practical philosophy there referred to belong to positive science, unless there be some ground of distinction in reserve which I do not apprehend.

of belief or conviction (ii. 1). It is in form a judgment (ii. 16).

It is evident that such a description of knowledge, though possibly useful for didactic purposes, involves notions so much more general than itself, and so far from being of settled and accepted significance, that it cannot be taken for the foundation of the superstructure. It is rather the expression of a final result which may be expected to emerge in the course of the discussion. Nor do the truly determining aspects of the problem of knowledge appear with sufficient explicitness in it. The notion of belief or conviction may be intended to cover the objective reference which is the peculiar mark of the content known ; it can do so only if there has been previously such research into the nature and meaning of objectivity in knowledge, and the relation thereto of the inner process called *conviction*, as shall entitle us to use the notion with complete insight into its significance. It is rather in the explanations offered of the more general terms appearing in the definition of knowledge, of *consciousness*, *experience* and the like, briefly, in the various elements constituting what the author calls the standpoint of Critical Realism, that we are to look for the true foundation of his theory of knowledge. The point of view of Critical Realism is that assumed by the author ; the main burden of his theory of knowledge is the explanation and justification of it. The barest statement of the point of view is surrounded with difficulties, and one can hardly hope to be quite successful in reproducing in words other than those of the author what seems to be its import.¹

Experience is, briefly, the sum of all the effects produced by things on our consciousness. The world of consciousness, which is the world of experience, contains only phenomena, the appearances of things. Within that world arises, and is developed under conditions which we can trace, the important distinction of subjective and objective. But this distinction is not equivalent to that between consciousness and the independent reality of things. To be an object and to be an existing real thing are notions wholly distinct from one another. The first is explicable, and is only explicable in terms of consciousness ; the second is explicable, and only explicable in terms implying independence of and difference from consciousness. It is impossible for us to work out consistently the hypothesis that the world of consciousness

¹ See ii. 2-22, iii. 28-39, 53-61, and generally the chapter on the reality of the external world, iii. 128-176.

is absolute, is the sum-total of reality. In the mass, and in all details, conscious experience exhibits itself as relative to and conditioned by the independent world of real existence.

Just by reason of this dependent, relative character of conscious experience does there arise the necessity for a theory of knowledge, for an attempt to determine systematically how far the connexions among the elements of consciousness can have assigned to them worth as means of apprehending the nature and relations of that which is. Conscious experience has its own general laws, a structure or form imposed upon it from its very nature, as always and throughout the experience of one thinking subject. The Kantian doctrine of the unity of experience, though perhaps susceptible of modifications in detail, and though certainly requiring a radical alteration as regards its interpretation, expresses, nevertheless, the deepest, most fundamental trait of consciousness. The notions by which we express in abstract fashion the ultimate conditions imposed on conscious experience by the unity and identity of the subject, need by no means have only that subjective validity allowed to them by Kant. They are more than ways in which the subjective activity organises its experience. Just as they express the ultimate forms of connexion among the elements which enter into knowledge, so they may be held at the same time to express the relations of real, extra-mental existence. For consciousness, with its ultimate nature, forms a part of the great whole of real existence, and it may be maintained that in its structure it exhibits the characteristics imposed upon it by its relation to the whole. Were there not an essential conformity between real relations and the ultimate forms of consciousness, the real could in no way enter into consciousness.¹

The statement of the general point of view enables us to form a clear idea of the special lines which the detailed investigation has to follow, and at the same time brings sharply before us the nature of the problem involved throughout the whole treatment. Knowledge as a whole is to be analysed, not psychologically or in regard to the natural conditions of its growth, but logically or epistemologically, in regard to its significance as disclosing the relations of the ultimate reality. With this analysis the second volume is occupied. The results of that analysis fall then to be considered in their general aspect as metaphysical propositions, declaratory of the nature of the real, and there-

¹ See for this last extremely important point, ii. 23-4, iii. 319-20.

fore raising the old familiar questions of speculation. The treatment of these questions in the light of the analysis of knowledge occupies the third volume. Throughout there appears the problem, how we are to interpret the reference to reality which plays so significant a part in the theory of knowledge. The problem is certainly no new one—it is as old as speculative philosophy—but it is always of interest to follow the way in which a thinker, with new lights, with improved methods, approaches it.

The first important step towards Prof. Riehl's solution of this question is to be discerned in the chapter on Sensation, for I suppose that by the ambiguous English term *sensation* one must translate the equally ambiguous German *Empfindung*. Were the term *apprehension* recognised as of general import, as indicating only the attitude of the subject in having a more or less definite content before it, as implying, therefore, nothing in regard to the psychically simple or complex character of the act of apprehending, and as embracing a variety of species under it constituted by the differing conditions under which it comes about, *sense-apprehension* would be the more correct and more intelligible rendering for *Empfindung*. Rejecting the views regarding sensation of Condillac and Herbart on the one hand, and of Kant on the other, Prof. Riehl marks out for inquiry (a) the nature of the process of sensation, (b) the relation of sense-qualities to the character of the stimuli by which they arise, (c) the significance of sensations in building up the peculiar form of conscious experience, the antithesis of object and subject. In respect to the first point, his answer is that the process of sensation is essentially complex—complex in no fewer than three ways: (1) as involving factors distinct in psychical character; (2) as arising only through change, difference; and (3) as containing in the form of a judgment the primitive assertion of existence, real, extra-mental being.

Every sensation is a combination, an intimate union of two factors, the quality apprehended and the mode of feeling with which it is apprehended, a mode "standing in relation to the Intensity of the sensation, and dependent partly on the strength of the stimulation, partly on the strength of the psychical activity of apprehension". Every type of sensation unites these constituents; the union and its peculiarity are realised with greatest distinctness in the sensations of Movement, by which, I take it, Prof. Riehl means what is sometimes designated Active Touch. There "we have the sensations of tension and resistance only in proportion to our feelings of striving; and, conversely,

we become aware of these feelings only in relation to the sensuously apprehended resistance". With the utmost distinctness is exhibited in this mode of sensation the all-important opposition of the two constituent factors. In sensation, then, consciousness is not merely receptive, it is at the same time spontaneously active (*selbstthätig*), for Feeling is the reaction of consciousness on the qualitative contents of sense-presentations.

With much of this account of sense-apprehension I am in entire agreement, and shall only note in passing wherein I think it requires a more explicit statement in order to make its character unmistakable. I cannot make clear to myself what exactly Prof. Riehl includes under the term *Feeling*. "All actual sensation," he writes, "is at the same time *felt*; it never forms a wholly indifferent state or content of consciousness. We have thus a *feeling* of seeing which marks that off from the mere idea of seeing." Now the word "indifferent" which appears in the first of these sentences does not seem to me at all appropriate to express what is implied in the second, if I understand the second rightly. "Indifferent" applies strictly to the familiar rubrics of the pleasurable and painful, which psychologists have been accustomed to use as the comprehensive categories of feeling. But neither with pleasurable nor painful has the *feeling* of seeing or the feelings of the activity of accommodating the ear for sounds (another of Prof. Riehl's examples) anything in common. If Prof. Riehl means that feeling has a range and significance extending beyond the pleasurable and painful, as seems to be implied in the description of pleasure and pain as stronger degrees of feeling (p. 63), if he is serious with his generalisation of it as the "reaction of consciousness," a process I do not pretend to understand, it would have been well, in view of the high importance attached to the function assigned to feeling, to have given a fuller account of it. Nor am I satisfied with what is briefly, almost casually, said of the "psychical activity of apprehending the stimulus". I quite agree in regarding the phase of mental life called sense-apprehension as a mode of activity, and in thinking that our primitive conceptions of activity are drawn from experiences of this inner life; but when the activity of sense-apprehension is separated from the other components of the complete fact, and is regarded as having an intensity or strength of its own which, apparently, may vary, I am of opinion that the fullest psychological analysis is needed in order to avoid misconception.

Sensation is not only complex as uniting feeling and

qualitative content: it further exhibits complexity as being in essence of the nature of a judgment. In order that a sensation should come about, there must be a previous stimulation, of which we are sensuously unaware, but through which, and in relation to which, the new stimulation is apprehended. "That of which we are conscious in sensation is the difference, the relation of two stimulations, which only by their co-operation yield the product, *sensation*" (p. 41). "Every sensation is a process of becoming aware (*das Bewusstwerden*) of the definite difference between two stimulations" (p. 71). The stimulation or sensation of which we are unaware is the indispensable condition for the consciousness of the sensation of which we are aware; the first stands to the second in the same relation in which the apperceiving representation stands to that apperceived; and as the mental movement in the case of apperception is admittedly a judgment, the form of the act of sensation is likewise to be called a judgment.

With most of this exposition I find myself in disagreement, and I am still more sceptical as to the consequences which Prof. Riehl proceeds to evolve from it. For he regards the facts just noted as clearing up the "characteristic and epistemologically weighty feature of sensation," that with every sensation there goes "the immediate consciousness of its relation to something which is not sensuously apprehended". This *something*, he insists, is not to be regarded as identical with or as explicable by the objective character which we come to assign to the qualitative content apprehended. Sense-contents are doubtless regarded as not-ourselves, but in addition they are referred to something not-themselves. An original *positing*, or recognition of existence, not of or in but other than the sense-content, is combined with every act of sense-apprehension. Sensation cannot be regarded as absolute; from its mode of origination it can only have the significance of a property of something existing (*Eigenschaft von Etwas*). With this original positing of existence goes the peculiar mass of feeling constituting Belief, which feeling, again, appears to be identified with the feelings of innervation (p. 45). It appears to me that in the view thus taken of sense-apprehension certain knots are rather cut than fairly untied. Evidently much of any future discussion respecting the real worth of knowledge is determined by what is here said regarding sensation; indeed, without qualification, it may be said that the whole decision in regard to such real worth is contained in the decision regarding sense, for Riehl is perfectly definite in maintaining that

all the more elaborate processes of perceiving, thinking, reasoning, rest, so far as reference to reality is concerned, on sensation. In the development of knowledge we may make more distinct and adequate our conceptions of the real, but in so doing we only unfold what is implicitly contained in sense.

The resemblance of this acceptance of sense to certain cardinal doctrines of Leibniz leads naturally to a critical remark on the earlier thinker which enables Prof. Riehl to make more precise his own view (iii. 171). The Leibnizian doctrine, it is insisted, can offer no explanation in terms of its own assumptions of the objective reference taken to be involved in the *Vorstellungen* of the Monad. To start with the conception of the monad as a being whose whole activity is *presentation* (*das Vorstellen*) precludes any explanation of a *presented content*. At best such content can be no more than like presentative activity of other monads. It appears to me, however, that the objection so stated is too general. I doubt if Leibniz would have accepted the severance between *presenting* and *presented* on which it turns. I think he would have maintained the old view that no conception whatsoever can be formed of *presenting* or *apprehending*, in even its most obscure mode, which does not involve as correlate the *presented* or *apprehended*. Where there is difference, and difference doubtless there is, it concerns the most of existence to be ascribed to the contents presented or apprehended. With Leibniz the element of not-self, of external reality, is for each monad the limiting, passive, given character of those impressions which, though called perceptions, are held to exist either as wholly beyond consciousness, or, if within consciousness, yet not to involve the opposition of self or subject and not-self or object. With Leibniz, moreover, the passive element discharges a function entirely similar to that which Prof. Riehl has to assign to sensation. It is for Leibniz the expression of the real relation in which each monad stands to the whole: it is the bond of union among the monads whereby they form a system of compossible realities. With Prof. Riehl sensation is a result of the actions and reactions of the real (for though the expressions used often lend themselves all too easily to the naturalist or biological view, which takes the organic body and its extra-organic stimuli as the agents involved, Prof. Riehl interprets both body and extra-organic things as only phenomenal of the ultimate reality); and, as from sensation so conceived there develops the distinction of subjective and objective, sensation in its primitive character is the general

correlate of reality. The difference which remains can be put succinctly enough. With Leibniz, the given, passive, limiting nature of sense-affection is regarded as containing in itself and as warranting the reference to reality other than the sentient monad; with Prof. Riehl, the same characteristics are regarded as containing in themselves and as warranting a reference to reality which is *other than sensation itself*.

I trust I am not misapprehending Prof. Riehl in taking the last expression as being the feature of his doctrine both of sense and of consciousness generally. He seems to me to say that in every act of sense-apprehension there is contained a judgment that something is which is other than, distinct from, antithetic to the sense-content apprehended. Such a view deserves closest scrutiny and closest examination on its own ground. Psychological analysis of the various components making up the act of sense can do no more than bring out more clearly the essential peculiarity of this all-important feature. No explanation of it, in terms of the phenomenal experiences within consciousness, is possible. Accordingly, one must insist that all appeal to the given, compulsory character of the content apprehended is beside the question. These marks can serve only to distinguish, in phenomenal experience, what *is* sensation from what simulates sense, and I observe, with some surprise, that Prof. Riehl maintains no one can imagine that he is sensuously affected. There must be dismissed also, as not touching the heart of the question, all appeal to active movement as an ingredient in sense-apprehension. For movement is itself phenomenal, and, however important as giving a clue to what we are to understand by the real, can hardly be regarded as itself the act of positing a real distinct from itself.

In order to obtain further light on so important a matter, I turn to certain distinctions on which Prof. Riehl lays stress, and which in themselves are of much general interest. In the first place, throughout the discussion of the grounds for allowing reality to the external world, the notion of *being* (*Sein*) is carefully distinguished from the notion of *being an object* (*Object sein*), and their relation is so explained as to leave no doubt that it corresponds exactly to the familiar scholastic and Cartesian distinction between formal and objective existence, a distinction which more modern theories of knowledge have done ill to drop. *Being* is the real, absolute existence of the thing, absolute in the sense of being apart from, other than, and independent of consciousness. *Being*

an object is the form which apprehension of Being takes in consciousness under the two-fold sets of conditions—those of consciousness in general, those of special affection of sense in particular. *Being an object* is invariably relative: relative not only to subject-being, since it is developed in strictest correlation with that, but also to the real independent existence which is referred to it. Thus *Object sein* and *Phenomenon* come to mean much the same in Prof. Riehl's terminology, and it is possible for him to distinguish phenomenon from *Vorstellung*, which ambiguous term, so far as I can gather, he would confine to *re-presentations* resting on and formed from sense-affections. It is true, his language here is not more accurate than that of the majority of writers on psychology and theory of knowledge, and one might feel inclined to insist that such a phrase as occurs on iii., p. 182—"natural phenomena are only known to us in the form of *Vorstellungen*, consequently as psychical processes"—indicates a deeper confusion than that of language.

As the point is one of very great significance, a further remark may be permitted on it. When it is said that objects perceived are complexes of sensation arranged in space- and time-relations, the plain man is much perplexed, and his perplexity is not removed by the reason advanced for the statement, that whatsoever he knows lies within consciousness, that perceptions, sensations and the like are facts of consciousness, and that consciousness cannot be transcended. I do not ascribe all these reasons to Prof. Riehl, though the definition of Perception is his, for he has very emphatically expressed his disapproval of them, and has most excellently commented on the wholly metaphorical sense of such expressions as *in* or *out of* consciousness. But I think he has not gone far enough, and that there is more to be said for the plain man and his perplexity. There runs a double sense through all the favourite shibboleths of subjective idealism. On the one hand, consciousness is spoken of as the way of knowing; on the other hand, it is spoken of as a *fact*, or series of facts. In the second sense, it may be appropriate to use of it those objective terms by which we are in the habit of describing things or events; in the first sense, all use of such terms is inappropriate and hopelessly misleading. It is unquestionably difficult to find and to remain faithful to forms of expression which shall only indicate the first of these senses. The tendency to drift into objective phraseology is almost inevitable, and yet one would be inclined to go the length of saying that just in so far as a phase of consciousness is conceived of as a fact, an occur-

rence, in so far it ceases to have significance as an item of knowing, as a way in which knowledge is had. Its existence, in other words, plays no part in the apprehension which, one may perhaps legitimately say, is had through means of it. I may illustrate the distinction adverted to by referring to Mr. H. Spencer's interesting discussion of Realism. When Mr. Spencer tells us that the subject consists of faint states of consciousness, the object of vivid states, he is describing both in objective terms and noting such characteristics as might be observed by a mind apprehending both. But, when he tells us that "the thing primarily known is not that a sensation has been experienced, but that there exists an outer object," he is dealing with what can never be exhibited or conceived in the fashion of a fact, and in which the existence of a sensation as a fact plays no part. So far, then, from admitting that apprehension cannot transcend consciousness, one might say that if consciousness be conceived in objective terms as a series of facts, all apprehension transcends it. Consciousness so regarded is a part—an extremely complicated and involved part—of what we know. I will add that its complexity seems to me too frequently overlooked, and that inconceivable harm to philosophy generally, and to psychology in particular, has attended the familiar correlation of outer and inner phenomena, objects of outer sense and objects of inner sense. With fatal facility, sensations, presentations and the like are treated as objects to which the subject may attend, which have objective relations to one another, and which are viewed as separate entities.

It appears to me only a form of the same confusion of thought when a quasi-existence is assigned to what are called phenomena. Riehl distinguishes in a manner I do not quite understand *Phenomenon* and *Vorstellung* (iii. 152). Both subject and object he says are phenomena, and that in the only intelligible sense of the term, as including in their significance the reference to that which appears. If he only means to oppose the secondary and derivate experience given in representations to the direct and vivid experience of sensation, feeling and perception, there is not much to object to, though I do not in the least understand what the real is that manifests itself in the subject. For, after all, the special significance assigned by us to *Vorstellungen*, in the sense of representations, is acquired, not original; given to it by experience, not contained as an integral part of the content represented. But, allowing this to pass, one may fairly ask what is the exact nature

of the addition made to complexes of sensation, called objects perceived, when these are designated phenomena. It seems to me as if a two-fold answer to this was given by Prof. Riehl. On the one hand, he is constant in insisting that sensation as such involves position of the real other than sensation, that *being* is no predicate of thought but is only *felt, experienced*, and that thus there comes about the phenomenal aspect of the percept. Phenomenality is, so to speak, given in and with the act of sensation. On the other hand, developing his view of the immediate, not secondary or inferential apprehension of a real external world, he advances as grounds "two incontestable facts of consciousness, the dependent character of consciousness in sensation and perception and the real existence of social or altruistic feelings" (iii. 172). I cannot attach much weight to the latter of these facts, and, generally speaking, the stress laid on the social factor seems to me unnecessary. There can be no doubt that, in the formation of that highly articulated representation or, better, conception of the outer world to which the matured consciousness attains, what may roughly be called the social factor plays an important part, but its function seems to me secondary and derivative, capable of having its history traced and so explained. The reduction of the "transcendental" consciousness to notions, or empirical conceptions, may certainly be largely facilitated by the operation of the conditions called social, but it seems to me an error to trace its origin to these conditions (iii. 165 n.).

I cannot determine whether or not Prof. Riehl identifies the "dependent" character of consciousness in sense and perception with the original and simple positing of the real. The identification would seem to me an error; for the characteristics which compose it are themselves somewhat complicated data of consciousness, and yield their result only through reflective interpretation. Probably, then, the whole stress of the contention respecting the external world rests on this original position of extra-sensational reality, which is, at the same time, recognition of the character of the sense-content apprehended as phenomenal. But if so, then there are two questions that press for answer. First, is the position explicable by reference to the psychological characteristics of sensation; in other words, is the character of sensation as such the determining element? Secondly, are we entitled to describe complexes of sensation as phenomena? As regards the first, I take the view briefly expressed by Kant: "that it is an affection of sense in me

constitutes in no way a reference of the presentation to any object," and would carry it further. All that concerns the sensation as an affection in me becomes matter of knowledge only in the course of that development of mind whereby the subjective individual life of the self is severed from the total complex of experience, and only contributes indirectly to enable us to determine further the general marks of the object apprehended. The *position* involved in the sense-affection is due not, it seems to me, to the peculiarities of that affection as produced, dependent, constrained or what not, but to the thought of which the true whole concerned, the act of sense-apprehension, is a specially conditioned form. I can form no conception of an act of apprehension which is not the apprehension of a "somewhat," an object therefore, but it seems to me evident that the said "somewhat" is neither the "sense-affection" nor a "real other than the sense-affection". Not the former, for that only becomes an object when apprehended as one phase in the temporal sequence of the inner life; not the latter, for the data by which the discrimination of real from sense-affection is effected are not there given.

What do we mean by describing complexes of sensation as phenomena? I have already objected to the phraseology which describes complexes of sensations as the objects apprehended in sense-perception, but at present I am only concerned to draw attention to the quasi-existence which is implied in the term phenomenon. It is an implication that runs in a perplexing fashion through the whole of Kant's *Kritik*, and the wonderful difficulties of exposition to which it leads can be most clearly discovered in the curious speculations contained in his posthumous work. Nor is the perplexity confined to modern and more psychological philosophising. It is at bottom the difficulty that the Platonic theory encounters in dealing with the particulars of sense-perception. The complication seems to me false. There is no predication of existence involved in the term phenomenon. I put aside as wholly irrelevant the consideration that our states of consciousness or acts of apprehension are produced, are dependent in their origin and relation to one another. The produced character of the act of apprehension, even if we had a clearer idea of the process than we possess, forms no part of the content apprehended. That content apprehended is certainly to be distinguished from the real, but not as though it were one fact set alongside another. The act of apprehension is only to be understood as involving this two-fold aspect—appre-

hending and the content apprehended, and these are not two distinct existences. I should even go so far as to think that recognition of the act of apprehending *as an act* is a secondary and derivative feature. That our apprehension, then, is phenomenal means no more than that it is apprehension of reality, and that it is as such distinct from reality. Phenomena do not intervene as a *tertium quid*, and when we speak of phenomena, contrasting them with the real, we mean, I think, only to lay stress on the exceedingly partial, fragmentary character of the picture which we gradually form of the inter-connected whole we style the real. There are many expressions in Prof. Riehl's treatment which lead me to think that in substance we are not far from agreement, but in the mode of exposition I find much to which I take exception, and there are some special doctrines which I cannot reconcile with the view here taken.

The fundamental position being granted, that in consciousness, and pre-eminently in the phase of consciousness called sense-apprehension, there is direct reference to a real other than consciousness,—much follows with comparative ease in regard to the limiting, objectively valid notions of experience. The qualitative differences of sensations point to ultimate differences in the characteristics of the real stimuli that give rise to sensation. The prevailing tendency to interpret all difference as quantitative merely, has its universal scope assigned to it through the easy confusion between conditions of existence and conditions of intelligibility. We only understand when we have reduced the manifold presented to a unity of conception, and the uniting conception by which we express to ourselves the ultimate relations of the real is naturally based on the formal and most general aspects which we apprehend in phenomena. But it is impossible to regard the mechanical form of the real as exhausting its nature. The qualitative differences we discover in our apprehension of the real must correspond to qualitative variations in the real itself.

Moreover, just as we find ourselves in sense-apprehension constrained to accept sense-contents as given by and corresponding to the real, so we are constrained to accept and to interpret, as in like manner indicative of the real, the numerical multiplicity, the coexistences and the sequences of the contents of sense. It is true the representation of these relations is dependent on the unity of consciousness, and is possible only for a consciousness aware of its own continuous identity, but the relations themselves are emphatically *given*, not constructed, belong to sense, not to

representation. "The relations of sensations, their definite coexistence and sequence, impress consciousness just as sensations themselves do; we feel this impression in the constraint which the definiteness of empirical multiplicities imposes on our perceptive consciousness" (ii. 104). In these relations, too, consists the empirical element of the representations Time and Space.

The analysis of Time and Space is carried out with great care and minuteness, and it forms, in some respects, the most original and valuable portion of Prof. Riehl's work. A brief *résumé*, such as can here be given, will convey but an inadequate conception of the care and circumspection with which the work is done. Selecting Time for first treatment, as being the fundamental idea of the two, Riehl signals the two-fold element implied in it, permanence and sequence; points to the real conditions of these in the uniformity and continuity of consciousness on the one hand, and the actual, empirically given sequence of sensations on the other hand; and traces the formal qualities of our Time-representation, its unity, homogeneity, continuity, to the recognition of unity of consciousness in the apperception of successive sensations. In a most interesting fashion he draws attention to the psychological variations in the clearness with which consciousness of self comes about and connects with these the changes in our Time-representation from its first crude stage as little more than Time-perception up to the abstract notion of mathematical Time. Time, then, though conditioned by the unity of consciousness, and therefore having an aspect only to be interpreted in terms of consciousness, contains likewise an empirical side, and so has objective significance. It is neither pure form of consciousness nor merely subjective. The empirically definite relations of Time point clearly to relations of the real which are manifested in Time. Real things, what affect consciousness, must be at least simultaneous with their phenomenal appearance in consciousness, and it may, therefore, be reasonably assumed that phenomenal sequence points to real sequence. Time, moreover, is a real agent; "it changes the matter of perception, and, therefore, can be no mere form of representation". The familiar facts of *Zeit-verschiebung* are directly, easily, perhaps only, explicable by assigning to Time an objective character.

With many portions of this account of the Time-representation I cannot bring myself to agree. The phenomena of *Zeit-verschiebung* appear to me to point only to the easily made confusion between the perceptive and the

imaginative portions of our experience, and to furnish the most conclusive reply to Prof. Riehl's hypothesis that the subject cannot *imagine* that he is sensuously affected. That he should be capable of such imagination appears to me most intelligible. For, after all, the distinction between real and imaginary in sensuous experience is empirical only. The subject who dates an impression before it has actually occurred has no more than the vivid representation of an unimpressed content which he locates without hesitation in the empirical series of sensations co-existing with it. Again, that the real should be simultaneous with its phenomenal appearance in consciousness is only capable of interpretation if it be assumed that real and phenomenon are alike objects of consciousness. So to designate them is to fall into the error above noted, of erecting the content of perception into an object with a quasi-existence. There are not, as it seems to me, three distinct facts—real, phenomenon, act of apprehending—but two only. The phenomenon has no more than a fictitious existence conferred upon it by an act of our own abstraction. Further, I can attach no precise meaning to the view that Time is a real agent, concerned in altering the contents of perception. The "summation of effects" which Prof. Riehl adduces as the characteristic feature of development, and as proof of the real efficacy of Time, is perfectly explicable without such a curious hypothesis. That the real changes one would readily allow, and one would further insist that such change is by no means to be conceived of after the fashion of our Time-image; but to allow efficacy in production of change to Time is a position which has neither reasons in its favour nor coherence with the general doctrine of the apprehension of Time. I would observe, lastly, that I do not think there is so much difference between the account of Time here given and the Kantian doctrine so sharply criticised by Prof. Riehl. I do not think Kant overlooked, or needed to overlook, the empirically given nature of sequence, but I imagine he was justified in asserting that representation of these empirical facts, recognition of sequence *as* sequence, was not to be explained by simply pointing to the empirical facts. These, after all, however familiar to us, have a nature only assigned to them by abstraction from the more concrete and complicated acts of our perception. The whole exposition given by Prof. Riehl tends to accentuate unduly the mechanical interpretation of the connexion between reality and consciousness into which, indeed, the theory seems more than once to fall.

I have no objection to the distinction drawn between association and apperception, but I would press that the nature of apperception, which is left in great obscurity, might well have been more thoroughly investigated; that the significance of unity of apperception is insufficiently determined; that the relation between the unity of consciousness and the empirical contents of the permanent self is by no means clear; and finally, that the notion of *permanence* cannot be regarded as legitimately based on the mere fact that some contents of the inner life remain unchanged, while others fluctuate. To describe this relatively greater duration of some mental facts as permanence, and in any way to correlate it with the constancy of matter, seems to me a hasty analysis.

The same distinction between formal and empirical elements as has been used in respect to Time is applied to Space. What is formal and, so to speak, *a priori* in our space-notions is the result of the unity of consciousness in the varied experiences of coexisting sensations. All that characterises space can be explained by reference to the functional activity of our uniting consciousness taken in conjunction with the peculiarities of sensuous experiences in which coexistence is apprehended. The senses of space are pre-eminently touch and sight, for in them only is there fully developed the distinction between "motor-feelings" and sensuously appreciated qualities. It would be more correct, however, to say that sight only is the space-sense; the distinctive features of Prof. Riehl's analysis being the total severance of tactual space from visual, the explicit declaration that tactual experience of space, so called, is entirely *temporal* in nature, and the identification of the fundamental mark of visual sensations with the ultimate quality of perceived space. Tactual space is the sum-total of the ideas of coexistence obtained by means of the sense of touch, and the formation of it rests on the power of distinguishing simultaneously received touch-sensations, on a difference in value of the "feelings of innervation" accompanying these, and on the "mobility" of the interdependent system of such feelings and sensations. Not in any one of these three elements do we find the mark we habitually assign to space; the sense of touch, by itself, cannot yield space-perception in the narrower acceptance of the term—"the perception that sensations not only coexist in definite relations and in definite temporal extents of such relations, but in addition are external to us and external to one another (*ausser uns und aussereinander*)" (ii. 147). It is this latter feature, the

simultaneous externality to one another of perceived facts, that constitutes the characteristic of space as subjectively apprehended, and it is only sensations of sight that furnish at once and by themselves the perception of spatial extension. Space is the specific form—not of external sense but—only of the sense of sight. All other sensations, taken by themselves, must be represented by us as intensities of definite quality, "but we must think the sensations of brightness (*Helligkeit*) as extended" (ii. 149). "The sensation of brightness, without further experience, is the perception of extendedness, and this perception seems to be directly bound up with none of the other sensations" (ii. 150).

The very startling character of these positions is due mainly to the language in which they are expressed—language for which Prof. Riehl, perhaps, is not more to be blamed than the majority of psychologists. But, after we have had difference between simultaneous sensations distinguished from "*aussereinandersein*," in that the latter involves the representation of being in different portions of space (ii. 79, cp. 99), it is satisfactory, though a little perplexing, to find it after all stated "that *aussereinandersein* is a sensation like every other, brought about by real processes in our consciousness" (ii. 198). For if this is interpreted strictly, it would signify only that the conditions of visual sensation were such as to enable its contents, with great readiness, to assume the form of Space. The immediacy of space-relatedness which appears to be assigned to the content of visual apprehension seems to me illusory, though I am quite prepared to allow that, in our concrete or pictorial way of envisaging space, we tend habitually to employ only data of vision. The highly objective character which we accord to the contents of visual apprehension seems to me not more dependent on the peculiar ease with which distinguishable parts in the visual content are simultaneously apprehended than on the relatively great amount of "*objectifying*" data which accompany vision, and of which, indeed, Prof. Riehl is no ways oblivious. I should, therefore, go the length of doubting the worth of the sharp distinction drawn between tactual and visual space-perception. For, if we must recognise, as Prof. Riehl does, that the peculiarities of the visual space-perception, in the picture it affords us of a world of objects immediately outside of one another, are strictly subjective, and that only the "logical and arithmetical portion of the space-intuition" has real significance, we may reasonably doubt whether the distinction has any other than psychological importance. I find it quite

impossible to attach any meaning to the expressions that sensations have or have not the space-quality in themselves. Sensations taken in themselves are mere abstractions. Sensations, as acts or states of the apprehending subject, are necessarily devoid of space-relations, because only as in contrast to a space-extended world of objects does the subject arrive at increasingly clear consciousness of himself and of his varying inner experience. Nothing can be better than the exposition of this correlated development of subject- and object-consciousness given in Prof. Riehl's chapter on Perception (ii. 187-218). The only remark I shall offer on it is, that it makes abundantly clear how large is the share in sense-apprehension that is played by elements not capable of being described as sensuous, how imperfect are the psychological classifications which separate perceiving from thinking, and how impossible it is to connect the reference to reality with the mere abstract nature of sensation.

Unity of consciousness, which plays so important a part even in Perception, comes forward in more explicit fashion in the various processes and products of Thought, and by Thought Prof. Riehl understands *discursive* thought, manifested in the familiar types of Notion, Judgment and Reasoning. There is much excellent matter, both of psychological and epistemological kind, in the treatment of the various ways in which, within the sphere commonly designated perceptive, the uniting function of consciousness makes itself apparent, but to this a mere reference must suffice. More interest attaches to the manner in which Prof. Riehl reproduces and interprets the familiar distinction between matter and form. The function of the unity of consciousness is in itself formal; the distinguishing peculiarities of the various products of thought come from the general nature of the matter within which unity of consciousness is realised. As the result of the combination between purely formal unity of consciousness and general characteristics of the matter of experience, we have the fundamental outlines or principles of the systematic conception of completed knowledge. Such principles may be described rightly as *a priori*; they can only be specialised through particular experience; but they furnish a norm and guide to all empirical research, and in default of them empirical research would not only be aimless but would fail to yield foundation for those universal maxims on which in detail it confidently proceeds. Such maxims, *e.g.*, as the law of causality, the law of the permanence of substance and force, exhibit on closer analysis empirical and *a priori* features. Empirically, *e.g.*, the law of

causation requires in its two aspects, as indicating a connexion between two events and as a generalisation, on the one hand special evidence of the quantitative equality of the facts designated cause and effect, and on the other hand special evidence that similar or identical cases are found in nature. But all such special evidence would fall short of the mark if there were not conjoined with it the perfectly general rule of all experience, that experience as a whole is only intelligible in so far as its variations are conceived as no other than modes in which the one permanently identical whole is manifested, and this again is but the correlate in experience of the unity of consciousness. The unity of the world of experience is bound up with the unity of consciousness; that this unity should, for understanding, exhibit itself as a quantitative unity depends on the general character of the matter furnished, which exhibits no other than qualitative and quantitative aspects.¹

According to our author—

"The logical conditions of experience, the categories of the permanence of substance, of causality, or the sufficient ground of change, of the interconnexion of phenomena in one all-embracing reality or nature, are not, as Kant thought, a manifold of different notions, given as merely the actual structure of our understanding. They spring from a single supreme principle, that of the unity and permanence (*Erhaltung*) of consciousness in general, and differ only through the various application of this principle to the general relations of Intuition. The Ego . . . becomes conscious of its own unity and identity as the conditions of all knowledge, now in the discrimination of a simultaneous manifold of impressions, the form of whose intuition is space, now in the combination of a series of impressions, now in the conjoint acts of discriminating and combining, whence arises the notion of a connected whole of phenomena. We can thus distinguish an analytical, a synthetical and an analytico-synthetical function of consciousness. Through the one we distinguish the permanent from the changeable, through the second we connect a change with its grounds, and through the third, finally, we conceive of all the real, whether things or processes, as belonging to one and the same world, each particular as part of the whole of Nature" (iii. 67-8).

It is hardly worth raising the question, whether the remark on Kant made here and in the note appended to the passage quoted is fully justified. I do not imagine that Kant would have found much to object to in the statement that category and schema are one and the same thing; there is a sense in which that is true, another in

¹ The same line of thought leads Prof. Riehl to the view that judgments in a logical aspect are equations of notions, that the one principle of logical consequence is the law of identity, and that logic therefore has only to lay down the conditions under which notions can be combined without contradiction.

which it is false, both for Kant and for the author's somewhat similar theory. Nor is it, perhaps, a fair statement of the Kantian categories to describe them as merely the actual structure of the understanding, and so to sever them on the one hand from the unity of consciousness, and on the other hand from the general character of intuited material for understanding. It is, however, a thoroughly justifiable comment on the Kantian theory, that it fails precisely where it was most emphatic on the need of success, *viz.*, in showing that the categories are the abstract forms of the connecting thoughts whereby objective knowledge is possible. That unity of consciousness, the mind's realisation of itself, is possible only in and through apprehension of objective fact, is the simple maxim which Kant applies in the analysis of experience, and it is a principle from which, so far, assent cannot be withheld. But it does not enable Kant to show either that the thoughts involved in such apprehension of objective fact are in intimate relation to identity of consciousness, or that in system they exhaust the abstract significance of objectivity. It is a slippery notion, that of the unity of consciousness, and all too easily interpreted in a semi-psychological fashion, into which fashion, indeed, the over-formal interpretation of it likewise tends to fall. I feel no great satisfaction with the separation which Prof. Riehl seems to make between the apparently given character of intuition (in its general characteristics) and the uniting function of consciousness, a separation involving as consequence the assignment to those given characteristics of all the concrete significance of the thoughts which emerge from their conjunction. Nothing is gained by giving to a result of our reflection the quasi-objective meaning of a distinction among facts. So far as the analysis of knowledge in and for itself is concerned, it matters not at all that we may seem to ourselves in the history of individual experience to be able to trace successive stages of clearness of conception in the process of unifying the matter of intuition, and that the process may seem to be one involving given material, and the active function of discriminating and combining it. No light is thrown upon the "function" of unity of consciousness as a condition of knowledge by assimilating it in any way to the active exercise of an energy by the subject, an exercise which we shall in vain attempt to express in terms of objective fact, and which must, therefore, from that point of view, present itself as a merely blank form of conjunction.

It is possible that I may here be misinterpreting Prof.

Riehl's meaning. I have in view, however, not only what is said in the passage above quoted, but also what has been before commented on, the apparent tendency to regard the "transcendental consciousness" as a derivative fact, a product of social relations. To these must be added the general interpretation given of unity of experience, which seems to me to be taken in too quantitative and mechanical a fashion, and the special treatment (iii. 214 ff.) of psychical synthesis. I confess to a feeling of doubt when I find much deduced from the notion of unity—when, *e.g.*, the whole principle of ground and consequent is interpreted as no more than the expression of the unity of things, and the equivalence of ground and consequent merely the statement of what is involved in the thought of reality as one. Such principles seem rather to me to be the ways in which the unity of things comes to have a meaning at all, and the unity of things to have a far more concrete and complicated significance than that of a quantitative sum.

I have some difficulty also in understanding the full scope of the discussions, most interesting and valuable in themselves, of the two great scientific principles, the universality of the causal relation, the permanence of substance and force. The general character of the treatment is plain enough. The ultimate principle, unity of consciousness, prescribes unity in the sequence of events and in the sum-total of coexistent, space-related facts. Connectedness of ground and consequent in the temporal sequence of experience, permanence of the extended amid change, are but the other side of unity of consciousness. These generalities, the conditions of the intelligibility of experience, become scientific principles, if and in so far as the actual data of intuition can be shown to conform to them, and such conformity is exhibited in the quantitative relations of conditions and the events conditioned by them, of real substance and its changing forms. So far is clear. Experience, the world of phenomena, is to be regarded as a connected series of interdependent changes, constant in sum amid all its variety. Nature is a mechanism. How far, then, do these characteristics apply to the ultimate real, that which is manifested in phenomena? How far do they enable us further to determine the nature of the real, which up to this point has only had asserted of it, first, a general structure enabling its phenomenal manifestation to conform to the conditions of unity of consciousness; secondly, a particular structure explanatory of the empirically cognised qualitative differences and quantitative relations of phenomena? To this final

question the whole inquiry has been tending. It is, indeed, the ultimate metaphysical problem, the answer to which is based upon, and perhaps even determined by, the analysis of experience. Prof. Riehl's answer, I think, is to be gathered from the tenor of the detailed consideration which in his final volume is given to the special problems, Reality of the Outer World, the Relation of Psychical and Material, Determinism, the Infinity of the World, Necessity and Teleology. It is impossible to follow in detail these special discussions, any one of which furnishes matter for prolonged debate. I shall here note only certain results which seem to me to bear on the ultimate question. On the whole, as was before said, the discussions resemble those occupying a similar place in the Kantian system, though cast in a more modern, more scientific form, and the results in many ways are identical with the Kantian.

The treatment of the question of external reality seems to me beset throughout with the ambiguity attaching to the term *real*, which now signifies the peculiarity of immediate sensuous affection as opposed to *Vorstellung*, now the character of that which, being other than the sensuous content apprehended, manifests itself therein. When the first is prominent, there is the greatest danger that the terms employed will drift into the fatally attractive puzzle of psychological idealism, which offers its interpretation of things as mere facts of consciousness. I cannot accommodate my ideas to such phrases as "Natural phenomena are only known to us in the form of *Vorstellungen*, consequently as psychical processes," or "the general properties which we assign to the objects of external perception are at the same time qualities of the process of perception itself" (iii. 182, 189). There seems to me no ground for identifying the meaning of consciousness with the subjective processes which in a dim and obscure way we gradually come to sever off from the rest of experience and regard as constituting the individual mind. The hard problem, What characteristics do we assign to those facts, as they may be called, that enter into the inner life? Prof. Riehl, so far as I can see, does not touch. He has traced excellently the manner in which the opposition of subjective and objective grows up and acquires clearness and articulation, but the effect of the general maxim that experience, consciousness, is the natural product of the action of things, a maxim that one might not quarrel with provided its interpretation were agreed upon, is to induce the idealistic phraseology from which one would most gladly escape. Subjective and objective are alike treated as facts, the latter,

however, having the additional function of being "indicative" of the real, a function which I cannot reconcile with the notion of a fact at all.

The most important contribution to the ultimate problem is given, however, in the excellent discussion of the relation between psychical phenomena and material processes, of which the following passage is a summary:—

"Psychical states and activities are not dependent on the external phenomena of things; on the contrary, such phenomena are themselves, as known (*als Vorstellung*), the result of psychical activity. The will stands in no contradiction to the mechanism of outer fact. The same conformity to law, which in its external manifestation we apprehend as mechanism, is exhibited in the connexion of the Will on the one hand with its effects, on the other with its causes; and the mechanical liberating force of Innervation, which we in the inner life experience as an Impulse of the Will, is distinct only phenomenally, not in ultimate nature, from the impulse itself. An innervation without the impulse of will is therefore not the same real process as an innervation with this impulse. Consciousness and will spring from the qualitative activity of things, the abstract and quantitative expression of which is mechanism. The mechanism of outer nature is no precondition of things themselves, is no law imposed upon things from without; it is but the expression of their own activity, the consequence of their unchanging properties" (iii. 211-2).

In other words, the mechanism which forms the objective element in our experience is not the ultimate reality, but phenomenal of it. The one system of real things, qualitatively distinct, gives rise by its interactions to the world of consciousness, within which, and only within which, mechanism finds a place. We must say then that the effects of the ultimate reality are one, just as the reality is one. The difference between the inner psychical experiences and the objectified phenomena we commonly call external is a difference resting on the ways of apprehending the one real. It is the same real interaction of things that is now apprehended as a change in the particles of the brain and then as a psychical experience. The subject cannot be simultaneously apprehensive in both ways, but what is for him inner experience is for an outer observer change of a mechanical kind, objective event.

Can we follow out completely this conception? There is, Prof. Riehl admits, one significant exception—what he calls "psychical association," the connexion of contents in consciousness on the ground of their apprehended likeness. This is only "in and for self-consciousness, and, even if external observation of the processes in the nervous substance were complete, must for ever lie beyond its scope" (iii. 214). That psychical association is not to be called

just one fact of mind among others, but that it is the very essence of the whole, Prof. Riehl fully recognises, and he finds explanation of its apparently anomalous position in the very ultimateness of its character. "It concerns no phenomenon, but the ground of all phenomena, the uniting function of consciousness. Of this function, psychical association is the effect." It depends on no one organ or part of the nervous system; its substrate is "the organic individual as a whole and in the interdependence of its parts". The unity of self-consciousness is the psychical expression of the organic equilibrium that is maintained in life amid all its quantitative changes. This unity can be intuited neither in inner nor in outer experience. Only its effects, psychical associations, are part of the subjective side of experience (iii. 215-6). Moreover, only in external experience is there involved the note of mechanism, the equivalence or identity of causes and effects (iii. 201, 322). Inner experience gives a "supplement to the mechanism of external phenomena: it shows us processes not simply brought about, but themselves active" (iii. 195).

Some points in this exposition seem to me to involve grave difficulties. If I follow it rightly, the peculiarity of the phenomena of the inner life is explained by reference to the qualitative character of the real, a character only known to us in and through its phenomenal manifestations, but of whose nature these phenomena entitle us to form at least a partial conception. This conception, as based on the phenomena of the inner life, involves the thoughts of self-activity and of a mode of inter-connexion other than that familiar to us in the sphere of mechanism. In what relation can the real so conceived be placed to conscious experience? Not merely in that of cause to effect. Apart altogether from the reflection that in such a relation something would be involved alien to the same relation as holding in the sphere of phenomena, it seems to me hard, if not impossible, to identify the thoughts of *effect* and *phenomenal manifestation*. Further, to put in the briefest fashion a second perplexity that I find, I cannot form a coherent conception of the inner experience as a number of states each of which might be contemplated as arising from or being the manifestation in consciousness of the underlying reality. The very consideration to which Prof. Riehl draws attention under the term "psychical association" seems to me decisive in this respect. Psychical association, we have seen, is not one phenomenon of inner experience, but is that which gives to mind its character; and I do not

suppose that it is intended to identify the unity of consciousness on which the possibility and the form of knowledge rest with the empirical unity of the self-conscious individual. Finally, I note that if, as Prof. Riehl is most cautious in pointing out, every external phenomenon has its psychical correlate, he can hardly avoid the perplexities arising from the want of an exact statement as to what characterises inner experience or psychical phenomena as such. For there are not external phenomena and internal. *External* and *internal* are merely relative terms qualifying the several states of consciousness, and are absolutely inseparable. If there be no internal state which has not its external correlate, the object of sense-apprehension to another, just as little is there an external which has not its correlative internal; a difficulty which appears to me entirely to arise from the identification of 'consciousness' as our apprehension of the real with 'consciousness' as a peculiar set of phenomena, those of inner experience. The negative side, then, of this Critical Monism seems to be just and sound; the positive, I cannot follow out in any coherent fashion.

The discussion of the perennially interesting problem of Determinism is, in my judgment, one of the richest and most valuable sections of the work. To some portions of the introductory statements formulating the problem one might take exception; the general character of the solution offered leaves little to be desired. The ultimate ground for mechanical determinism Prof. Riehl rightly finds in the tendency to hypostasise the mechanical in experience. The true explanation of practical freedom, which is, in fact, the kind of action possible for a self-conscious agent, he finds in the comprehensive view of experience as exhibiting both mechanical connexion and conscious process,—not as disparate realities, possibly indifferent to one another, but as distinct only through the difference in ways of apprehending; a difference which otherwise would be expressed by saying that the subject can never obtain at once the apprehension of his own character and actions as among the facts of external experience and as inner life. There is a necessity in things, but a necessity that equally applies to the mechanism of external nature and to the existence of self-conscious agents acting with purpose and intelligence. The future may be pre-established through the past and the present, but "what has fore-ordained it is a power necessarily akin to human understanding, since it has produced that understanding" (iii. 245). Practical freedom

is no other than action from self-conscious motives. It implies, then, negatively, that the will is not constrained by immediate sensuous impulses, and, positively, that it depends on abstract self-conscious motives (iii. 259). And just as it is through action at all that the subject becomes aware of himself, so it is in the development of action that there becomes clear the consciousness of a general will, or spirit, or rule of action, and that the individual becomes morally free. On the circumstances through which this development takes place, Prof. Riehl has much that is valuable. I am under the impression, however, that here, as in the correlative case of belief in the external reality of things, he allows himself to be too much influenced by a desire to conform to current scientific ideas. For the 'intelligible character' of the Critical Philosophy he would substitute the character as moulded by social forces into conformity with, and recognition of, a generally constraining rule of conduct. The influence of these social forces is no more to be doubted than the comparative jejuneness and fruitlessness of the Kantian notion; but it requires much careful statement to avoid the error of tracing the moral law in an abstractly mechanical fashion to the natural forces of society. Were there not, in even the individual's consciousness, the elements that are conditions for recognition of a universal rule of conduct, it does not seem to me that such recognition would come about through social relations. The ethical side of the problem, however, is not discussed with formal fulness.

I take in the briefest fashion what forms the matter of the concluding chapters in the work—the cosmological problems, infinity of the world, the relation of natural law to teleology. As regards the first, the conclusion reached is that "the phenomenal world, the only object of knowledge, is in mass of unchangeable and consequently finite magnitude, in spatial extendedness not necessarily limited, in time unlimited as regards the past and boundless as regards the future"; but that, so far as the question applies to the ground of the phenomenal world, no notions of magnitude have any significance. The world in this sense does not exist in itself as mass or corporeal nature. The ground of phenomena in space is not itself in space or time (iii. 316, 314, 313).

The necessity of mechanical law is no more objectively real than the necessity which is implied in the relation of means and end. But that latter relation can find no place in the mechanism of nature, neither as explanatory of a part nor as a possible explanation of the whole. Only in the field of conscious striving, in the region of practical conduct, has

it a place, but there its place is as assured as that of mechanical law in the realm of nature. "A final end has objective reality, since purposive action is a process that takes place by reason of the unity of that which is the substrate of material and mental phenomena in the context of our experience. Voluntary action is the subjective expression of the very same activity which is objectively exhibited as spontaneity of the cerebrum" (iii. 354).

How closely these final determinations approximate to the cautiously expressed results of the Critical Philosophy does not need to be pointed out. Their form of expression is different, and, so far in particular as regards the central notion of Kant's practical philosophy, strong opposition is implied,—an opposition which, however, seems to me to involve no matter of great philosophical significance. I am not able to attach much weight to Prof. Riehl's strongly expressed opinion that in the Kantian system a distinction of importance is drawn between Things-in-themselves and *Noûmena*, and that in the Kantian ethics an unduly positive content is assigned to *Noûmena*. When we investigate more closely this positive content, there is only one interpretation, that of the self, which is not in thorough harmony with the more modern, more scientifically expressed views on the real here reached. But that point undoubtedly raises a difficulty in regard to the ultimate conception of reality both in the Kantian doctrine and as here expounded. From that difficulty as it concerned the Kantian system, seem to me to have originated those more metaphysical teachings of German philosophy for which Prof. Riehl has, I think, little or no sympathy. As it concerns his own views, it may be put in a very general fashion, and the statement of it will convey briefly the ground of objection which I take to "Critical Realism," so far as I understand Riehl's exposition of it. Are the results reached compatible with the root-idea of critical realism? or do they and the process by which they have been reached render necessary a restatement of that idea? The idea itself I take in the form frequently given to it in the work before me, that experience is the result of the action of the real upon consciousness. Every thinker must feel the difficulty of expressing himself otherwise than through ordinary familiar terms, the secret metaphors involved in which he may deliberately purpose to exclude from influence on his thought. Now the metaphor concealed in such an expression is that of a quasi-mechanical operation, and we are all too ready to picture to ourselves the world of conscious experiences as the result of the inter-

play of the real. But such a conception strikes at the root of all explanation of knowledge and gives fixity to a distinction which in the course of the development of thought proves itself to be a mere result of abstraction. No one would propose to treat consciousness as 'unnatural' or 'supernatural,' but one need not on that account identify the notion of knowing with the notion of a produced *Vorstellung*. Nor can we evade the consequence that naturally follows from the strict adherence to this mechanical conception. The realm of real existence and the world of ordered phenomena, that is to say, of produced *Vorstellungen*, which by their empirical nature and connexion in the unity of consciousness assume an order, lie apart from one another. A certain puzzling mode of existence, as perplexing as the mode of existence of the Platonic particulars, is necessarily assigned to the phenomenal world, and if we, at the same time, insist that existence is all of a piece, that there is but one variegated real, our principles only conflict in our minds. It is not that I object to those final determinations which Prof. Riehl offers of the nature of existence—with most of them I find myself in entire agreement; but I cannot help feeling that they constrain us to just such a more metaphysical way of attempting to express the relation of the real to thought as is here most strenuously refused. That we can find no expression for the nature of the real in terms of scientific knowledge, I take to signify—not that its nature is exhausted by what we can scientifically determine regarding it, but—that the notions of scientific knowledge have their own limits, limits that call for, and are capable of, explanation. With their aid, then, we can in no way attain a philosophically satisfactory statement of the way in which the real and consciousness are related.

This general difference of view would, doubtless, entail differences in regard to many important points of detail, some of which have been touched on in the course of this review. It does not prevent the most cordial recognition of the great value of Prof. Riehl's work—work equally distinguished for width of knowledge and for sustained power of philosophical thinking.

V.—DISCUSSION.

"ON FEELING AS INDIFFERENCE."

By Professor BAIN.

The question mooted in my short Discussion-paper in *MIND* (No. 48) xii. 576, has been handled by Mr. Johnson, Mr. Sully and Miss F. A. Mason. I now desire to offer a few remarks upon the points made by the three severally.

Although not first in date, I will begin with Mr. Sully's paper in No. 50, p. 248. His observations disclose the necessity of scrutinising more closely the testimony of language to the popular recognition of states of excitement where pleasure and pain are either absent or uncertain in their presence. Roget's *Thesaurus* is a very convenient reference here.

Before taking up Pleasure and Pain, Roget has a heading entitled "Affections in general". Under this he gives *Feeling*, with such synonyms as endurance, suffering, emotion, fervour, &c.; *Sensibility* as susceptibility to impressions; and *Excitement*, or *Excitability*. Here are a few of the synonyms under the last head:—passion, emotion, perturbation, vehemence, impetuosity, flush, heat, fever, fire, flame, fume, tumult, ebullition, boiling-over, storm, tempest, fit, paroxysm. With these may be taken the synonyms of *Wonder*, which is one of the special heads:—surprise, marvel, astonish, amaze, strike, startle, stun, take aback, bewilder, stupify, dazzle, electrify.

Now, of this class of words it may be truly said, that the larger number fail to indicate either pleasure or pain, although not excluding these as possible, or even usual concomitants. I do not concur with Mr. Sully in thinking that 'excitement,' barely stated, means pleasure, although the qualified expression 'love of excitement' does undoubtedly imply it; nor can I admit that surprise and its synonyms essentially suggest pleasure. To know whether a surprise is pleasurable or painful, we must view the context; and we are quite prepared for cases of surprise that are not obviously one or other. The state so named has a meaning and a vocation, irrespective alike of pleasurable and of painful accompaniments.

With Roget's lists before me, I am inclined to dispute Mr. Sully's position "that feeling is commonly described in language that points to the distinction of the agreeable and disagreeable". It is only to a small number of the synonyms of excitement that this will apply. Even the leading terms—'emotion,' 'passion'—do not decisively indicate pleasure or pain. What is more to the purpose, they cannot be accepted even as generic terms,

covering pleasure and pain, and excluding states that are neither. I am not aware that the language contains a single term of this import—a defect that we ought somehow to supply.

A few of the terms do undoubtedly suggest something more than bare excitement, as racket, shock, hurry, scurry, worry, bustle, rumpus. As indicating very high intensity, more than the nerves in average circumstances can bear, these are commonly associated with pain. But a great many of them have little or no hedonic meaning—awaken, rouse, blaze up, fire and fury, flutter and flare. A few are decisively suggestive of pleasure, being part and parcel of the expression of pleasure—cheers, hurrah, glorious, exultation; yet it may be fairly contended that the pleasure is rarely equal to the excitement.

Mr. Sully takes advantage of one of the meanings, and perhaps a principal meaning, of the word 'indifferent' as implying a very low degree, if not total absence of feeling. It is not in this sense that I employ it at present, but as the equivalent of neutral. The whole drift of the argument excludes indifference in the sense of the approach to unconsciousness.

I agree with Mr. Sully in his next position, stated under two heads—namely, (a) 'pleasurable' and its opposite must stand for all degrees of the quality; (b) a mental state is a movement involving a continual change of elements, with fluctuation in the feeling-tone. Neither of those allegations affects my contention, that there accompanies most of our modes of intense feeling a neutral excitement, which remains during the moments when pleasure and pain have alike ceased. In those fluctuations, we do not instantaneously change out of pleasure into pain, or *vice versa*; we have many moments when neither is consciously present, and yet we are not reduced to mental stillness. Take pleasure. This is the state of all others that needs the most numerous and complicated conditions, positive and negative, for its first production, and still more for its persistence. If at all intense, it is apt to be transient. Yet from the flush of a great pleasure, there survives a voluminous excitement, when the pleasurable tone has completely subsided. Nor is it, that pain immediately replaces the pleasure. Under certain circumstances, as when we are forcing the stimulus of pleasure too far, we come upon pain at last; but there may have been a considerable interval of neutrality.

Suppose, again, a very painful excitement—as a fright, an affront, an announcement of loss or misfortune. The pain is apt to be most acute at the first moment. The vigour of the system, or some change in the current of the thoughts, may eventually overcome it, but the excitement does not thereby subside; it may last for minutes, or even hours, independent altogether of occasional recurrences of the pain, or occasional touches of pleasure from other causes.

Mr. Sully dwells largely upon the case of surprise, and that

very properly, seeing the stress that I myself have always laid upon it. That a surprise is a shock or momentary disturbance, I can readily allow. That this begins in pain and turns to pleasure, may be true of some surprises, but I could not receive it as a general statement; nor can I see much force in describing the whole experience as a transition; of course, it is a transition to begin with, but the subsequent stages may be extremely various. The surprise of an unexpected piece of good luck begins as pleasure, and goes on as pleasure, so long as the forces of the mind are able to sustain it. So, *mutatis mutandis*, with pain. The most typical form of surprise, as it seems to me, is the sudden advent of something so entirely strange that we cannot interpret its consequences at all, but yet imagine that it has consequences. The appearance of comets in the middle ages usually caused painful surprises; the appearance of the new star to the crowd that Tycho found watching it was probably mere bewilderment.

I can readily grant, however, that a rousing effect of the kind supposed, although containing no clue to either good or bad influences, might not long be absolutely neutral: the movement of the thoughts would probably lead to conjectures of a distinctly pleasurable or painful sort; while, owing to the want of a decided indication in one of the two directions, there might readily be frequent transition from one to the other, and, from the very fact of such transitions, there would be moments of hedonic neutrality. How, then, are we to describe the state previous to any determination in either way, or in the neutral moments when one of the two opposites was giving way to the other, or finally when the mind ceases to toss between the two? Does anybody pretend that, because neither pleasure nor pain is predominant, or consciously present, we therefore relapse into quiescence, or into the *status quo ante*? If not, recognition must be accorded to a certain form of excitement that pleasure and pain, save as conditions, have nothing to do with.

Mr. Sully next adverts to the movement of mind in plot, and in anticipating results not yet realised. That this state contains moments of pleasure or pain, and frequent transitions from one to the other, is unquestionable; but the admission leaves undecided the existence of intervals where neither is traceable in consciousness, and also the proportion between the pleasure and the pain, pure and simple, and the totality of the mental agitation.

The case of nervousness and timidity in appearing before an audience is as pure pain as can well be. Yet here, as everywhere else, the pain may disappear, but not, therefore, the excitement.

I can readily concur in Mr. Sully's remark that such states of emotional excitement may be regarded as mixed states. They often are mixed; but the elements in the mixture are not confined to pleasure and pain. His analogy to fear and pity in

tragedy, gives no enlightenment; that being a more complicated problem than the one now before us.

Mr. Sully devotes a paragraph to indifferent *sensation*, which no doubt deserves a treatment apart. Although not, as I conceive, generically contrasted with neutral emotion, yet being at a much lower degree of intensity, it has least of the emotional, and most of the intellectual, in its operation. In every one of the senses we have certain sensations markedly pleasurable, certain others markedly painful, and a very large class that are markedly neither. A moment's reflection on touch or hearing will afford ample confirmation of this statement. Mr. Sully is inclined to believe that all sensations are fitted to please or displease, but owing to the effects of repetition, inattention, and so forth, we grow insensible to their effect. Seeing, however, that under every one of the senses there is a pleasurable class and a painful class that resist all such influences, I cannot accept this as a sufficient account of those that are permanently indifferent. A more likely hypothesis would be that they are balanced and mutually destructive mixtures of pleasure and pain, a view that has been advanced with reference to neutral excitement at the emotional pitch. This, too, has its difficulties, which I do not stop to consider.

These neutral sensations are, in practice, mostly neglected or overlooked. When turned to account, it is as signs or significant adjuncts of important meanings. Their indifference as pleasure and pain is in their favour, intellectually; attention is directed exclusively upon their discrimination or individuality, on which reposes their value as signs.

Mr. Sully indicates as proper subjects for determination the following: namely, how to define Excitement; how it is to be distinguished from quantity of consciousness—from intensity and mass of sensation, or rapidity of thought; whether it is anything more than the higher degrees of intensity of feeling itself. I quite agree in all this. My object is to show, by way of preparatory clearing of the ground, that excitement, however it may be defined at last, is not coincident, although often concurrent, with pleasure or pain. If I concede that it is nothing more than the higher degrees of intensity of feeling, it is because I think that feeling, in all its degrees, possesses not two, but three distinct modes.

I now offer a few remarks on Mr. Johnson's paper, No. 49, p. 80. His conclusions are so near to mine, that I might dispense with a review of his arguments, but for their indirect bearing upon one vital aspect of neutral excitement, namely, the way that it operates on our activity.

Mr. Johnson commences his paper with a criticism on what he calls my "unfortunate" phraseology in laying down my position, and on my whole statement of the fundamental elements of mind. His illustrative parallel from a fictitious supposition in

physical science I need not repeat. Suffice it to say, that he regards the three divisions of mind as related constituents in the same way that shape, size, and weight are related in material bodies; while, in my treatment (in common with that of Hamilton and Mr. Sully), they are made separable or detachable, just as if the shape of a table could be separated from its size and weight. This allegation involves two things:—first, that the psychical elements are related as here supposed; and, second, that Hamilton, Mr. Sully, and myself treat them as susceptible of being divided. Of course, it is enough if I speak on my own behalf.

Another charge, involved in the foregoing but formulated separately, is that I make a confusion by dividing the *subject-matter* of Psychology under the head of *states of mind*. I wish to clear this up before facing the main charge. It seems that while Psychology may well treat of Feeling, Knowing, and Willing to a great extent separately, states of mind "cannot be classified into Feelings, Cognitions, and Volitions". Now this seems to depend upon the meaning of the word 'states'—whether it contains an intractable signification such as to render its conjunction with 'Feelings,' &c., absurd. Now, it may not be very felicitous or instructive to call feelings 'states,' but an absolute incompatibility between the meanings of the two words is what I cannot discover. The word 'states' has a vagueness that seems compatible with anything; this may be an objection to it, doubtless, but of a quite different sort. To my thinking, it is about the most harmless word in our vocabulary. I am aware that Mr. Ward had previously objected to its being used as describing the fundamentals of mind; but I was able to answer him from his own mouth, by quoting a passage where he uses it precisely as I am found fault with for doing, and just under the same stress of circumstances, namely, the need of using, at the outset, terms that were familiar and suggestive—"the three *states*, modes, or acts of this subject". It may very well be that my treatment of the fundamentals of Psychology is erroneous and confused; but, if so, a more drastic prescription would be required than merely to disuse the name 'states'.

But the really serious matter is the relation of the three mental elements to one another—whether or not they are inseparable like shape, size, and weight in a material body. I would first point to one failure in this comparison, namely, that the shape of a body can be changed to any extent without involving any change of size and weight, as in handling dough. It is true that change of size would lead to change of weight, *pari passu*; but by choosing a different triplet—shape, size, and colour—the independence would hold throughout.

Now, assuming for the present that Feeling, Cognition, and Will are as inseparable as shape, size, and colour, we must also allow this difference:—An increase in the intensity of Feeling

modifies at once the other elements, it may be to increase them, or it may be to diminish one or other of the remaining two ; while it changes the whole direction of their activity. We should try, therefore, to get an analogy that holds in this particular.

Something approaching to the desired case is found in organic life. It is a congeries of functions, not one of which can at any time be removed. Yet while some, as the circulation and respiration, may not be suspended for the shortest interval, others can be in abeyance for hours together, as the digestion, the action of voluntary muscles and of the brain. Now the inter-connexion of these functions is such that any change in the one affects, more or less, the whole, exactly as with the three powers of the mind.

Another analogy would be the body politic, which has certain functions that can never be renounced, as defence, law, administration ; yet their exercise may be in temporary abeyance ; while any unusual activity in one affects the general balance.

So it is with the Mind. The three fundamentals so often mentioned are essential to our mental being ; their implication is so close that the exercise of the one affects the others ; and yet it may not be allowable to say that all the three must be in activity whenever one is.

I have stated more than once my view of the co-essential implication of the three powers ; while objection has been taken to the qualified terms made use of. Thus I have said—"The three functions of the mind are so interwoven and implicated that it is *scarcely, if at all possible*, to find any one absolutely alone in its exercise". Now, on the supposition that the triple combination of shape, size, and colour in material bodies is a correct analogy to our case, the apparent hesitation is manifestly absurd. But I dispute the soundness of the analogy. I maintain that, instead of forcing a resemblance to the composition of a piece of matter, we must look at the mental processes themselves, and see how far, and with what limitations, all the three powers can be said to be essentially present in every exercise of any one of them. We could not apply the material comparison to the human body, or to the body politic, although these are organic unities in the fullest acceptation. At every moment of our life the human organs are all present, but not all active ; and our language should take note of this circumstance.

Possibly the psychical union is not exactly met by this comparison either ; although it may have some points of resemblance not possessed by a piece of matter. Indeed, I doubt if there be any analogy so close as to be reasoned from, without special regard to the facts. In such a science as ours, extreme statements are to be guarded against ; involving, as they are apt to do, fictitious entities and strained interpretations.

In these circumstances, I repeat, the only safe alternative is to make our case a law to itself. An accurate examination of the

three constituents of mind, in their actual workings, will show us whether or not they must all be co-present whenever one is operative. For example, there is no analogy to meet Hamilton's doctrine of the inverse relationship of feeling and thought. It might be rudely figured by the correlation of physical forces; under which any single force, say heat, is developed at the expense of some other, according to a definite numerical proportion; but the relationship supposed may not be so strictly an affair of loss to one and gain to the other member of the reciprocal couple.

Whether, of the three great fundamental powers of mind, one alone might be active, while two are in abeyance, or two active, with the third in abeyance, in contradiction of the material analogy, may not be an easy question to answer in the affirmative, while there would be a great hazard in answering it with an unqualified negative. If we take an example from momentary efforts, I can see plausible grounds for affirming that a single power may operate in isolation—that we may for an instant be feeling and nothing else, or intellect (say discrimination) and nothing else. I fully grant the difficulty of isolating one of these two modes absolutely for any length of time. But now, if the case is put, May one be in abeyance while two are operative? I can adduce reasons for maintaining that such a case is possible. The consideration of the point will be the prelude to an important phase of our general discussion.

I will first, however, illustrate the difficulty on the narrower ground of the Intellect, taken by itself. I assume that Intellect is resolvable into the three ultimate facts—Discrimination, Assimilation, Retentiveness; and I ask whether, and how far, these three must be co-present with every exercise of any one. While it would be unsafe to hold that a momentary effort of one is impossible, without the presence of the two others. I fully admit that the three cannot be long in separation. Every act of discrimination is, I should say, accompanied with some effort of assimilation, although the two are not co-equal in each case. In some cases, discrimination takes the lead, and in others assimilation. I would maintain further, that, these being conscious processes, they are accompanied, not through logical implication, but through an empirical law of the intellect, with retentiveness. There may be circumstances where this last effect is zero, without apparently destroying the others, as in the last stage of senile brain-weakness; but still the limit thus imposed applies only to new impressions, and not to the old; for, in order to resuscitation by similarity, the brain must still be tenacious of the past. To put the matter otherwise: I would maintain that, so long as the mind is capable of one of these three modes of intellectual exertion, it is capable of the others; and, further, that any special effort of one, although the prominent fact of the moment, draws the others in its train. The nearest approach to

isolation is found under similarity; being the case where we are struck with an identity between something present and something past, but cannot recall that past in its actuality. This instance is enough to warn us against extreme statements as to the absolute inseparability of the essential components of mind.

But the important issue is to be found in connexion with mind as a whole. Can we rightly hold that the three divisions of mind—Feeling, Intellect, Will—must always be co-present whenever one is in operation? I apprehend that it will take a very great stretch of asseveration to uphold such a thesis. It may be difficult to maintain that one of the three can operate in absolute singleness; it will not be so difficult to show that two can be at work without the third.

The case for Feeling acting alone is not strong. We may, it is true, be almost wholly absorbed with some pleasurable or painful feeling, but not without some exercise of intelligence in the shape of discrimination of degree, and certainly not without instigating the will. Under a voluminous, happy, contented feeling, as in the warm bath, the will may be virtually in abeyance, but it is within call in case of an interruption, or a suggestion of possible increase, in the pleasure.

A better case is afforded under Intellect. The intellectual trains may go on for a time, with no appreciable feeling, and no stimulus to the will; although both the one and the other are very readily awakened into co-operation. I do not mean to argue either of these two suppositions. What is important for the present discussion attaches to a different position.

It is admitted on all hands that the motives to the will are properly and characteristically pleasures and pains. This leaves open the question whether the neutral states can operate in producing actions. I maintain they can, but in a different way, namely, through the tendency to act out an idea. I have always kept this tendency apart from Will proper, because I consider that there is no community in the *modus operandi*; at least, the distinction of the two is so considerable and important that they ought to be placed apart in our psychological scheme.

Whether both the phenomena may, or may not, be explained under the common exercise of Attention upon motor ideas signifies little, if the antecedent circumstances are distinct in nature. It is one thing to give way to a pleasure, and another thing to give way to an excitement that is not pleasure. When pleasure ends, its motive power as such ends; and any action then arising must be due to some other principle.

I am well aware that Mill took a different view of motives, and held that nothing could prompt to action but pleasure and pain. In Mr. Ward's "Psychological Principles, iii.," in MIND No. 45, passages to this effect are quoted; and I have had occasion to notice his theory of disinterested action as proceeding on the same supposition. Of course, I differ from him widely; but, with

such an authority against me, I must not run away with the notion that my present contention meets with unanimous approval. I cannot, however, attempt to argue the point, as would be necessary for convincing the unconvinced. I must be content, for the present, to adduce the most cogent example of our being led away by the influence of an idea, irrespective of pleasure or pain, namely, Imitation. If anyone can explain this by the recognised operation of the will, under hedonic influences exclusively, I will surrender at discretion. It is true that not many forms of neutral excitement give such a definite course to the thoughts as the infectious displays of another person, whether to the eye or to the ear, and hence the impulse to act out an idea is not always apparent. Some forms of excitement contain nothing definite, as physical drugging; the operation of such states is then limited to engrossing the consciousness and obstructing the entrance of repugnant objects or thoughts. Others are between those two extremes, as when witnessing physical agencies—a conflagration, a rush of water, a steam engine at work, a deep chasm or precipice. When excitement is caused by over-study of one thing, the morbid persistence of the thoughts is not will, but rather the defiance of will.

It is, in appearance, a question of nomenclature, but, in reality, a question of the amount and importance of the agreements between these two distinct modes of inducing activity. The difference has already been emphasised, but regard must be had to one great point of similarity, namely, that in the operation of the typical will, under pleasure and pain, there is also present the acting out of an idea. One element in volition always is the preconceiving of the act to be performed; which conception coupled with a motive leads to the performance. Whether this typifies the initial stage of will, before definite movements are associated with definite wants or gratifications, I consider very doubtful. But, it may be said, the same doubt would apply to imitation also in its purely impulsive form, that is, with no motive of the voluntary kind.

Putting aside these disputable matters, we have still the important distinction between a hedonic and non-hedonic antecedent; which seems too serious to be slurred over or set aside. Accordingly, I am in favour of keeping the term Will to the hedonic motive. Pleasures and Pains are the true motives; their generic character would be expressed by calling them Will-Feelings. Action under fixed ideas concurring with excitement would not be Will. Yet as we cannot create a fourth division of Mind, the difficulty is to find their place. Of the two alternatives, I would fix upon Cognition, or the realm of Ideas, one of whose incidents it is to tend to actualise themselves as a part of their very nature; the determining circumstance being intensity of hold, a character possessed by them without their losing caste. The accompanying excitement may properly be said to be a mode

of feeling; or rather it is a facing-both-ways condition, whose result is a special form of activity. If it is not cognition pure and simple, it is cognition raised to a pitch of fervency, which the thoughts can always assume without being disqualified for the cognitive function.

These remarks are my answer to Mr. Johnson's challenge to vindicate the assertion, that the elements of mind are not necessarily all operative at the same moment. I hold that Will, in my sense, may be decisively in abeyance for a length of time; namely, during those periods, of frequent and protracted occurrence, where neither pleasure nor pain is sufficiently pronounced to affect the conduct. I do not include in Will the routine operations of habit, although, of course, the motive to these, in the first instance, has to be traced back to some voluntary impulse. It happens often in nature that a movement may be set going by some adequate impulse which is then dispensed with.

The same observations are applicable to Miss F. A. Mason's criticism (No. 50, p. 253), so far as concerns her theory of volition. She also puts much stress on the production of neutrality by equal opposing intensities of pleasure and pain. I do not deny that such neutralising compounds are possible and likely. As the result is not zero, but a highly excited mode of consciousness, it still concedes my position. I am not disposed to look upon such mixtures as the only case of neutral excitement; the explanation, I suppose, is valued as saving the hypothesis of the essential hedonic quality of all our primitive modes of feeling.

Before closing this long review of the matter at issue, I wish to advert to the bearing of the subject upon another controversy, namely, the genuineness of our malevolent pleasures.

One way of evading that unpalatable doctrine is to produce our love of excitement as such, that is, neutral excitement. To say that, in this case, we love pleasant excitement would concede the pleasure of malignancy; to say that the excitement is neutral refuses to it the power of a motive. Neutral excitement would partly account for the contagion of crimes; that being a case where an idea realises itself in opposition to the will, and without being essentially pleasurable. The love of horrors and sensational crimes, tragedies and the like, may be a love of excitement, but not neutral excitement.

"THE PSYCHOLOGICAL THEORY OF EXTENSION."

I. By Prof. WILLIAM JAMES.

Since even the worm will 'turn,' the space-theorist can hardly be expected to remain motionless when his Editor stirs him up. Had I seen my July MIND earlier than I did, these remarks would have been in time for the October number. Appearing in January, I can only hope that the reader may not regard them as reviving an issue that is stale. The Editor, in his observations on "The Psychological Theory of Extension" in No. 51, made, as it seems to me, some *admissions* that ought to be recorded, as well as some *assumptions* that ought to be questioned, in the interests of clear thinking, in this dark field. One admission (if I rightly understand page 420) amounts to nothing less than giving up the whole positive and constructive part of the Brown-Bain-Spencer-Mill theory of Space-perception, and confessing that the criticisms usually made upon it are fatal. That theory contends that a variety of intensive elements can, by grouping [association] assume in consciousness the appearance of an extended order. "How is the transformation to be effected? or rather, can it in any way be effected?" asks the Editor. "I do not know that it can," he replies, "if sought for upon that line." As the account of Space-perception by these authors is usually reckoned one of the greatest triumphs of the Analytic School of Psychology, this defection, by a writer whose general tendencies are loyal to the school, is worthy of emphatic notice. The Editor's second admission is, that, if we could suppose ourselves reduced to the eye with its exploratory movements as our sole and only means of constructing a spatial order, such a construction might come to pass (p. 424)—an admission quite at variance with the widely prevalent notion that analytic psychology has proved the space-perceptions of the eye to be but reproduced experiences of touch and locomotion. So many doctrines reign by the mere inertia of supposed authority, that when, as in these two points, the chain of authority gets broken, public attention should be drawn to the fact.

The chief *assumption* of the Editor's which I wish to question is his proposition that, although experiences of an intensive order will not by *themselves* acquire the extensive character, they will yet, if so experienced as to be referred to an *object* (in the sense of "bare obstacle to muscular activity of a touching organ"), begin to assume that character. If we construe this view definitely, everything about it seems to me questionable. Either the obstacle feels big originally or it does not. If it have originally no bigness, the same difficulty arises which the Editor admits to be fatal to ordinary theory: how can intensive elements be transformed into an extensive result? If, on the contrary, the obstacle have a sensible bigness, then, of course, that would explain how the touch of it, the look of it, or any other sensation

which the mind incorporates in it, should share the bigness and appear itself extended. But then the question would arise—Why on earth should this feeling of muscular resistance be the only one which originally comes to us with a bigness? What grounds *a posteriori* or *a priori* can we show for assigning to it so pre-eminent an advantage, in the teeth of all the spontaneous appearances, which make us feel as if the blueness of the sky were spread out in itself, and as if the rolling of the thunder or the soreness of an abscess were intrinsically great? But the Editor keeps his whole account so studiously and cautiously vague that I confess I find it hard to construe his obstacle-object as definitely as this. It must, he says, not be treated as external “at the outset,” for the mere experience of resisted muscular activity is analysable into elements “which are found to be merely intensive—intensity of passive touch varying with intensity of effort” (p. 421). Nevertheless touch and effort are so related as to “suggest a cleft in conscious experience, which has but to be widened and defined for the opposition of self and not-self to be established.” It is when referred to the “not-self” of the experience thus defined that the originally intensive qualities of touch, look, sound; &c., begin, according to the Editor, to appear extended, and finally become more definitely extended in proportion as the resisting body gets more definitely to seem external.

Such accounts, however vaguely expressed, are indubitably true, if one goes far enough back in time. Since things are perceived later which were not perceived earlier, it is certain *a priori* that there was a moment when the perception of them began; and we are, therefore, sure in advance, of being right, if we say of any perception that first it didn't exist, and that then there was a mere suggestion and nascency of it, which grew more definite, until, at last, the thing was fully established. The only merit of such statements lies in getting them historically exact, and in determining the very moment at which each successive element of the final fact came in. Science can never *explain the qualities* of the successive elements, if they show new qualities, appearing then for the first time. It can only name the moment and conditions of their appearance, and its whole problem is to name these aright. Now, we probably all agree that the *condition* of our perceiving the quality of bigness, the extensive quality, in any sensible thing is some peculiar process in our brain at the moment. But whereas, in the articles which the Editor criticises, I maintained that the *moment* is the very first moment in which we get a sensation of any sort whatever, the Editor contends possibly that it is the first time we have the feeling of resisted muscular effort, but more probably (as I read his text) that it is much later in the day, after many sensations, all purely “intensive,” have come and gone. In my articles I have given (with probably far too great prolixity) the grounds for the date which I assign, and criticised the grounds given by Wundt and

Helmholtz for the later one which they prefer. I miss in the Editor's remarks (as in all English writings upholding the same view) any attempt at explicit proof that the earlier date is impossible, and that sensations cannot come with any apparent bigness when they first appear. May not the supposed impossibility be rather an assumption and a prejudice, due to uncriticised tradition? If there be definite reasons for it in the Editor's mind, I hope sincerely that he will publish them without delay. But if, on the contrary, a mere dim bigness *can* appear in all our first sensations, then the date of its appearance is most probably then; for discriminations, associations and selections among the various bignesses, occurring later on, will perfectly explain (as I have tried to show) how the definitive perception of real outer space and of the bodies in it grows up in the mind. Eye-experience, touch-experience and muscular experience go on abreast in this evolution, and their several objects grow intimately identified with each other. But I fail to see in this fact any reason for that *dependence* of the visual space-feelings "on a tactile base," such as my critic in his last paragraph seems to find. One who asks a blind person to compare pasteboard angles and the directions of their sides with each other, and who observes the extraordinary inferiority of his tactile perceptions to our visual ones, will be very loth to believe that the latter have the former for their base.

I am at a loss to know who the Editor means by the theorists ("space-theorists generally," he calls them) who commit the mistake of "seeking for an extension that is extension of nothing at all". Certainly this mistake cannot be imputed to anyone who, like myself, holds extension to be coeval with sensation. The matter of the sensation must always be there to fill the extension felt. The extension is of the warmth, the noise, the blue luminosity, the contact, the muscular mass contracting, or whatever else the phenomenon may be.

Still other points do I find obscure in the Editor's remarks—obscure, I am sure, from no other reason but the brevity to which he has confined them. May he be enabled soon to set them forth at fairer length!

II. By JAMES WARD.

Though on the first appearance of the Editor's criticism of the theory of space-perception upheld by Prof. James and myself I did not fail to take his strictures duly to heart, it seemed then better to leave the reply to Prof. James as one not only more able than myself to take up the cudgels in its behalf, but as one also with more claim to reply in this place; inasmuch as the preceding volume (xii.) of *MIND* is adorned by his long and masterly expositions of the theory. Moreover, I had then some hopes of following suit on my own account with a new state-

ment of the case thus ably propounded by my "ally" at that other Cambridge over the water. But *Dis aliter visum*, and my one chance seems now or never.

I propose then, first of all, to clear up one or two misunderstandings of my positions as put by the Editor; and afterwards, in the course of an examination of his theory, to make my own standpoint plainer.

To begin, I have certainly not consciously "followed the German lead in this matter" (p. 422). If we divide psychologists as regards this question into two camps—let us say, for brevity, Intensivists and Extensivists—then both Herbart and Lotze will be on the Editor's side and not on mine. Though I have used Lotze's phrase "local sign," and owe a great deal to its suggestiveness, yet the sense in which I have used it is one that he would repudiate. In like manner I have been impressed by Herbart's doctrine of presentational series and the interweaving of such series; but I have long seen the hopelessness of attempting to construct space by means of them, although they help us materially in trying to understand the intimate blending of the spatial elements implied in that almost instinctive localisation or projection of impressions to which I have referred (*Encyc. Brit.*, p. 53b, p. 55a *fin.*). The expositions of Prof. Bain and Mr. Spencer are, I take it, a great advance on Herbart, and my own views have resulted from pondering over these—pondering over them, no doubt, in the light of Herbart and Lotze. In particular, that one sentence of J. S. Mill's, which I have quoted (p. 53b, *note*), "The idea of space is at bottom one of time," forced me very reluctantly to forsake the Intensivist side.

On the Editor's view it is essential to a psychological explanation of Space to recognise the historical priority of the experience of body as resisting: with this intensity to start from and to work with, he believes that other intensities may gradually constitute it into Body as extended. He therefore finds it a fatal objection to my well-meant endeavours that I have "completely reversed the order of explanation" which he maintains "to be the natural and effective one". I agree with the Editor not only as to the importance of right order in what we might perhaps call psychogeny, as in all genetic sciences; but I agree with him, moreover, in the particular case:—the perception of body as resisting is, if anything, more fundamental than the perception of body as extended. But there is really nothing in my exposition incompatible with these admissions. Having to deal with three senses of perception, *viz.* (1) the recognition of an impression, (2) the localisation of an impression, (3) what I have called "the intuition of a thing," I had to deal with them in some order; and the order in which I have now mentioned them seemed the best. Still I have not omitted to insist at the outset that these are not three distinct stages, and that their actual separation is impossible (*Encyc. Brit.*, p. 52b). Under

the second head I have never treated of "an extension that is an extension of nothing at all" (p. 422), but of the localisation or projection of impressions, and have referred to the body as "probably affording our earliest lesson in spatial perception". I have also (*Encyc. Brit.*, p. 54a *fin.*) very explicitly, but of necessity very briefly, exposed the blunder of assuming that space is "an extension that is an extension of nothing at all," to repeat the Editor's words; or, as I have put it, that space is "in some sort presented apart from the localisation, projection or reference of impressions to such space". Finally, when treating of the complete fact of intuition, I have said: "Here our properly motor presentations or 'feelings of effort' come *speciality* into play. They are not entirely absent in those movements of exploration by which we attain a knowledge of space; but it is when these movements are definitely resisted, or are only possible by increased effort, that we reach the full meaning of body as that which occupies space. . . . Things are only presented when touch is accompanied by pressure. . . . It is of more than psychological interest to remark how the primordial factor in materiality is thus due to the projection of a subjectively determined reaction to that action of a not-self on which sense-impressions depend." And so far from "keeping back" all this till the later stage, "at which an account of substantiality might be given," I have mentioned it first of all among the constituents of what is "real". The exact drift of the censure administered to me for my very inadequate treatment of substantiality is not clear to me. But, lest the Editor or his readers should suppose that I identify "body as resisting" with substance; it should be said that, according to my view, filling space is but *one* property of what Locke called material substance, and that a psychological account of substantiality has to show how this "primordial," "invariable," "universally present" property attains that supremacy which was to Locke such a puzzle. Had I confused the occupation of space with the substantiality, to which I refer last; or had I maintained that we gain any knowledge of space before or apart from our experience of resistance; I should then have been guilty of the *ὑπερὸν πρότερον* I am charged withal. All the same, I confess that if it had occurred to me that so much depended on perfect clearness on this point, I should have striven to be yet more explicit. And this admission brings me to the Editor's own doctrine, on which I will venture a few remarks.

What I take to be the Editor's position is this:—We have three kinds of data—(1) Certain intensities, *viz.* (a) Muscular sense "understood in its purity as 'sense of effort'": to 'feelings of movements' he holds it right to object, "since 'movement' plainly presupposes 'space'"; (b) tactile and ocular sensations, and possibly others not specially mentioned. (2) "Certain laws of intellectual grouping under which the sense-elements" [*i.e.*, I presume, the preceding intensities] "are supposed to be worked

up"; or, failing these, some "psychological operation" of "aggregation" not further described. (3) The consciousness of a not-self as opposed to self, to which we gradually attain through the experience of resisted muscular activity. Given these data, the problem is: "How a variety of *intensive* elements can come to assume," or be "transformed" into, or be "got to acquire, the extensive character".

Now, interesting as it might be to see at once how this formidable problem is solved, it will be more in order first to examine the account given of the materials involved in it. To begin, it is to be noted that nothing is said of what I have called Extensity, and what Prof. James, for reasons which I cannot divine, prefers to call Extensiveness. The fact is, the Editor regards this conception as what Germans happily style a *Nothbegriff*, a sort of jury-mast that betrays at once our distress and our "psychological impotence". This is a point to challenge. Apart altogether from any "derivation" of space, there is a respectable body of evidence for the existence of this characteristic of all sensation; evidence, too, that shows it to be in all respects co-ordinate with intensity and protensity. If extensity had never been heard of except in connexion with theories of spatial perception, it might be open to more suspicion; but as things are, it cannot be simply put aside as "an assumption that is perilously near to the very fact of extension to be explained". There are, as regards the data of the problem, two things to do, and the Editor has done neither of them: the one is to examine this fact of extensity; and the other is to analyse the perception of space, as it now is, to see what elements it logically implies. Anybody who will seriously attempt this inquiry will find it hard to get rid of extensity, whatever may be his views about space; and he will find too that extension and extensity differ after the same manner as extension and the perception of extension,—which last, I presume, the Editor does not regard as extended, albeit it is the fact to be explained. Psychologists who, like the Editor, adopt the intensivist doctrine, assume that those intensive "elements," which come to be grouped according to intellectual laws, are from the first, in some way which is never made clear, merely detached particulars:—feelings of effort, k_1 , k_2 , k_3 . . . , ocular sensations r , g , y , b , &c., and tactual sensations in like manner. To this atomistic psychology there are the gravest objections, both rational and empirical, both psychological and psychophysical. I have handled this matter at comparative length in an earlier volume of *MIND* (viii. 478-9), as well as in the article now in question (*Encyc. Brit.*, pp. 45b, 46), and I cannot see that it is worth while to criticise my endeavour to explain spatial perception if this more fundamental topic is left aside. The definiteness and detachment of sensations which make them possible elements for intellectual grouping belong to a late, not an early, stage in mental development; and they presuppose, unless we cheat ourselves

with metaphors, an underlying continuity which is certainly not a coexistence-in-time brought about "through repetition, reversal, &c.". That this presentation-continuum or *totum objectivum* is not itself extension is obvious from the fact that it is presentational. To identify it with extension would be to connect it either with the whole of space or with some definite part of space; to regard it as having no proper unity and as capable of indefinite subdivision; and to allow either that material bodies could penetrate it or be prevented from penetrating by some repulsive force. Though psychologically distinct from intensity, it still remains psychical for all the reasons that make intensity so. We do not feel perilously near to confounding the physical and the psychical when we talk of "the mental stream flowing on in time," or allow that psychical intensities and complexities increase and decrease with physical intensities and complexities. But as to the question whether extensity contains already all that is implied in the *idea* of extension, this can only be answered by analysing that idea as it is now; and I venture to say that every theory of spatial perception is worthless that leaves such analysis out of account. It must suffice here to note two points:—Space implies (1) a co-existent continuity of positions, which as such can only be distinguished by qualitative differences, and (2) a characteristic relation between position and position, which is not merely distinctness but distance, apartness. Now extensity gives us only the ground for the first of these, so that, as it seems to me, without muscular movements *in conjunction with* the qualitative differences that make positions distinguishable, we should never know those positions as distant. A comparison of our organic sensations with our active touches would fully bear this out.

But the Editor, as we have seen, expressly omits muscular movements as distinct from sense of effort, because 'movement' plainly presupposes space. Movement, past all question, presupposes space, but *feelings* of movement, in the sense of auxilio-motor objects, psychically regarded, occur only in succession, and so far implicate nothing but time. A theory of space in which these are either omitted or identified with mere feelings of effort or resistance is certainly needlessly crippled. It is the necessarily temporal character of these presentations, taken *along with* the primitive and essential coexistence of our local signs, that to my thinking first makes spatial perception possible. I say "primitive and essential" because a coexistence that is derived from "repetition, reversal, &c.," after the fashion of Herbart or Spencer, seems to me to presuppose that very extensity it is meant to supersede; in other words, the perception of time itself does not seem possible without a presentation-continuum characterised by extensity. Extensity, protensity and intensity, in fact, seem as inseparable psychically as are space, time and motion physically. But to return at once from what might easily become a lengthy digression. Two feelings of movement, then, of the same series cannot

be coexistent, and their order is invariable. Our feeling of being embodied, on the other hand, is always an extensive feeling, and the local signs into which it may be more and more differentiated are always in some sort coexistent and invariable. The one affords us the relation of distance, by itself and primarily a fact of time; the other affords us the places or positions which must be not only distant but coexistent and distinct.

And now let us try to see how the problem is solved without either of these; but for my own part, I must confess the more I ponder it the less I see. It is more than likely, therefore, that the peculiar merit of the solution has escaped me. If I venture, spite of the obscurity in which I find myself, to urge difficulties, it is only in the hope that their statement will ensure their removal. All seems to turn on muscular efforts, in themselves intensive, taking the lead and securing a 'something' presently to become extended. Thus, and thus only, it is held, can the difficulty be surmounted of "construing as extension" the various time-clusters, also in themselves intensive, that are had in connexion with that resisted muscular activity. It is almost as if one said: You cannot actually have form till you have stuff to be formed, and thence concluded that when the stuff is secured it can be "transformed" or "got to acquire" or "can come to assume" the requisite "character" without more ado. Having got his object = obstacle, the Editor seems to leave all the rest to—well, I suppose we had better say—mental chemistry; since that is at least a respectable phrase. Laws of intellectual grouping are indeed mentioned among the "usual data"; but, to judge from the respect with which Kant's analysis is spoken of, it is doubtful whether the "psychological operation" here intended is intellectual after all. But, though we are provided with no details concerning this operation, the language in which the process is referred to is remarkable. We are not shown how the presentation or intuition of Extended Body emerges as a psychological fact: we are only told that—by "reference to," or on the "suggestion" of, this basis of object = obstacle—experiences in themselves intensive "*begin to appear as*" or to be "*construed as*" or to "*be interpreted as*" Extended Body. Such language, it seems to me, implies the independent possession of the very thing to be constructed or derived, and begs the question a thousand times more than any admission of extensity as a factor can do. The problem is not one that can be solved by an '*as*': that very innocent-looking particle carries us beyond "the psychological ground" to which the Editor very rightly intends to confine the question.

But, now, why is that basis of object = obstacle after all so suggestive? "Intensive experiences continue always to be referred to the subjective mental stream" we are told; and this sense of effort is an intensive experience like the rest, till it is "*construed as external object*". "The first beginning must

take place somehow," it is most "natural and effective" to say that it took place thus. To me this seems like cutting the knot, not untying it. In much the same way as Lotze showed the insufficiency of the Herbartian "repetition reversal, &c.," to afford spatial coexistence,—I mean by citing the case of sounds; the insufficiency of merely intensive resistance to "suggest a cleft in conscious experience" might be shown, *viz.*, by citing the case of "mental" efforts. For these are psychologically—so far as I see—quite on a parallel with muscular effort, when that is regarded merely as intensive. Surely the thing to be constructed slips in here ready-made; at least, as far as I understand the Editor's exposition, it does so. He tells us in one place (p. 423) that "we first, through simple and direct effort put forth, get some kind of vague notion of body as resisting". And elsewhere (p. 421) he apologises for using 'external,' although he does not mean external and only uses it "for the sake of definiteness". Till the obstacle is extended it is not *body* as resisting; and till it is both external and extended it is not in any sense a not-self. Moreover, self is extended and must be known as such before not-self can be so known. But it is really a hard case, for do but grant *body* as resisting in ever so "vague," "shadowy" and "indeterminate" a way, and all the rest will soon follow: the cleft "will be widened and defined," and we shall very soon find ourselves distinguishing "this and that extensively within such body". I remember as a child being much disappointed that I could not keep one leg in the air long enough to get the other up before the first came down. A very short time would have sufficed, and then, repeating the process, I might have mounted to the stars. But, alas! simple though it seemed, the feat was impossible.

NOTE.—One of the foregoing papers has come to hand too late for it to be possible now to attempt any rejoinder to the series of observations which (beginning with Dr. E. Montgomery's in last No.) have been called forth by my remarks on "The Psychological Theory of Extension," in No. 51. Though I took the liberty of making reference to the different writers who have now replied, it was only with the view of giving more point to my own remarks: certainly, there was no thought of assuming, with such passing references, to sit in judgment on the elaborate work done by the writers, in *MIND* or elsewhere, on the subject. There is nothing, however, to regret in the result; quite the contrary. While occasion has been taken by more than one of the writers to give important elucidation of views previously published, it seems clear from all the replies that the original remarks needed much more development, or at least better expression, than they succeeded in getting at the time. As soon as circumstances (which have not, for a good while past, been favourable to sustained effort) may permit, another trial will be made to justify the position taken up in No. 51; and it may then be possible to do more justice to the work of the writers.

EDITOR.

"HEGEL AND HIS RECENT CRITICS."

By Prof. ANDREW SETH.

In the last No. of *MIND*, Mr. R. B. Haldane devoted a few pages, under the title quoted above, to discussing the justice and relevancy of certain recent criticisms of Hegel. The "recent critics" mentioned by Mr. Haldane in the course of his remarks were Mr. Balfour, Mr. Bradley and myself, but Mr. Bradley is in the end honourably acquitted, and Mr. Balfour is gently dismissed, while the severest strictures are reserved for my own lectures on *Hegelianism and Personality*. I am treated as a culprit who ought to have known better. It may not be amiss, therefore, if I make a short reply on my own account to Mr. Haldane's remarks.

The gist of these remarks is that Hegelianism rightly understood is a "point of view" or a "method," and not a metaphysical or ontological system. This—"the new method which he elaborated for the investigation of the contents of consciousness"—is "what will remain in Hegel after the world has ceased to dispute about his metaphysics and theology". And from further references it appears that Mr. Haldane considers Hegelianism in this sense to be found in its purest and most scientific form in the first two papers of the *Essays in Philosophical Criticism*, which he and I edited together in 1883. He finds my more recent writing "misleading," because, "while condemning what is bad," it does not "separate out and defend what is good" in Hegel. My main reply to this charge must be that one cannot well do two things at once. I had written of Hegel several times already in the character of a sympathetic expositor, though always with certain reservations and difficulties. I could not say all that over again; it was now the turn of the reservations and difficulties. *Hegelianism and Personality* was professedly a destructive criticism of Hegelianism as a system—as a perfectly coherent metaphysic of the universe. Criticism was bound, therefore, to form the bulk of the book, but at the same time it contains repeated acknowledgments of the permanent value of much of Hegel's work. It is, however, inevitable that all criticism from one occupying a nearly allied standpoint must tend to be misleading, at least to outsiders,—because it of necessity emphasises the points of difference and takes for granted the ground occupied in common. But this is after all mainly a personal question, and so I pass to the philosophical issues raised, endeavouring first to narrow them as far as possible.

First, then, I most cordially agree with Mr. Haldane as to the value of Hegel's work in criticising our categories, and especially in recognising "that those features of experience which Kant relegated to the *Critique of Judgment* and to the ideal region of Ethics were just as much part of experience as the Categories of Kant themselves". The latter is set down by Mr. Haldane as "the great advance which Hegel made upon Kant," and as the

result he got "by turning knowledge to the investigation of its own nature". All these statements seem to me perfectly true. Mr. Haldane, on his part, appears to agree with me in my criticism of the metaphysical systems of Hegel and Green. At all events he sees much that is questionable in their metaphysical doctrine, and is not concerned to defend it. This I gather from the disparaging way in which he repeatedly speaks of those who have not been content to use Hegelianism as a "point of view from which to criticise other modes of thought," but have gone on to use it "as ground upon which to place props for speculations in both ontology and theology". "I admit," he says again, "that Hegel has, after the fashion of his time, gone farther and professed to found a system that savours suspiciously of Ontology. But the point is that, though Hegel and the Hegelians may have committed themselves to this system, it is separable from what comes first in his work and has been adopted by the Neo-Kantians." Now, although such sentences appear to concede the point of my criticism, I cannot help remarking upon the somewhat extraordinary phraseology. Hegel "went on" to found a system that "savour[s] suspiciously" of ontology: surely Hegel's system was to its author from beginning to end an ontology or metaphysics of existence. Every philosophy that is not agnostic or sceptical is necessarily a theory of the manner in which the universe exists; that is the very meaning of a philosophy, and Hegel would have tossed contemptuously aside any theory that professed to do less.

But perhaps it may be replied by a "Neo-Kantian" that this is just the point where Hegel departs from the true principles of the Critical method, and allows himself to be mastered by the old leaven of pre-Kantian Ontologism. The Critical method, as amended by Hegel himself, enjoins merely, it may be said, the continuous criticism of the categories of thought, or, in Mr. Haldane's words, it enjoins "turning knowledge to the investigation of its own nature". It does not begin, therefore, by taking certain existences for granted, from whose action knowledge results. On the contrary, it starts as an immanent criticism of knowledge, and it ends by asserting (in Mr. Haldane's words) "that not only can we not go outside the closed circle of consciousness, but that there is no outside which has really any meaning". In other words, we have an epistemology or theory of knowledge which has been improved by the elimination of the Kantian unknowables; the bounds of the existent and the intelligible are now fixed at the same point. So far excellent. But I would submit that this theory of knowledge or criticism of categories is not the whole of philosophy; it is rather a preparation for the properly philosophical question. When we have completed the criticism of the categories and adjusted them to our own satisfaction, we must (were it even for form's sake) go on to apply our theory of knowledge. If we say, for example: Self-consciousness is the highest and only adequate category of thought,—we are so far making no direct metaphysical statement.

But if we go on to apply the statement and say: The universe is explicable, therefore, only as a self-consciousness which perpetually presents itself to itself as an object and perpetually renews its subjective existence in individual intelligences,—we pass at once into the region of metaphysics, ontology, or philosophy proper. We are no longer dealing with the definition of names but with the question of the actual nature of existence. Evidently, unless a philosophy is prepared with some sort of answer to this question, it shirks its proper task; as a mere theory of knowledge it cannot claim philosophic standing, however acutely the theory may enable it "to criticise other points of view". While condemning previous metaphysical theories, it is bound to make explicit the inferences which are contained in its own criticism of categories, and so to present us with what it considers to be a more adequate, and even definitive, account of the universe. Now I am well aware that Hegelianism, and English Hegelianism in particular, has always shown its chief strength in criticism; and it was long a fair subject of complaint that, in spite of the large amount written by the English Hegelians about Locke and Hume and Kant, it was difficult or impossible to point to any definite statement of their own philosophic creed. But Hegel himself was undoubtedly constructive as well as critical, and in England Green at last stated in different parts of the *Prolegomena to Ethics* a metaphysical position which had been adumbrated rather than expressed in his *Introduction to Hume*. I have criticised that position adversely, but I hold that Green was right—was doing no more than his duty—in thus going on to supply the constructive basis for his own critical work. Mr. Haldane, on the other hand, apparently considers that this was a step astray on Green's part. "If reference is to be made to the works of Green," he says, "his Neo-Kantianism must be looked for in the *Introduction to Hume* rather than in the *Prolegomena to Ethics*." Now this view of Green's two chief works is a fair indication of Mr. Haldane's own attitude throughout his paper. He wishes, it seems to me, to evade the necessity of taking up any metaphysical position at all. He clearly disclaims for himself the metaphysics of Hegel and Green:—"The theory of knowledge becomes in their hands over and over again transformed, as Prof. Seth rightly remarks, into a metaphysic of existence or absolute philosophy, in which a transcendental self, which for this theory has no meaning excepting as the implicate of all experience, is hypostatised first into an absolute subject, and presently into an absolute cause". And again: "Kant declined to identify the logical unity of thought with a divine or creative self; Hegel was under no greater necessity of making the identification". Kant, it may be remarked, did not make the identification because he had, or thought he had, other ready-made realities in stock which served his purpose; but if a Hegelian does not make the identification, what is he to do? Is he to rest content with "the

logical unity of thought " as the centre and basis of his universe? Mr. Haldane's reply is most clearly conveyed in the following sentences: "All that is, is for—not the self which is a particular object in space and time, nor yet any transcendent self, but—knowledge". "We need not and must not assume the existence in any ordinary sense of an absolute intelligence in which thought and its object would be one and the same." Recognising, in short, that Green's theory of a creative Self is not warranted or led up to by his own method, Mr. Haldane hesitates to embrace the other alternative, namely, that the self of the philosopher is the only self of which the method speaks, and endeavours to get over the difficulty by substituting for both the abstract term knowledge: "All that is, is for knowledge". But I am bound to say that the substitution does not seem to me in any sense an improvement. An abstract term must be translated back into its corresponding concrete or concretes before it can apply to real existence. I can understand the existence of things for a knowing self; and, therefore, while I attack Green's position I understand (as well as one can in such matters) what he aims at establishing. But to speak of knowledge which is nobody's knowledge in particular, and to make this purest of abstractions an imaginary focus for which everything exists, seems to me dangerously like an abuse of language. At best it simply disguises the real position to which the ablest and most consistent Hegelians have gravitated, and which appears to be embraced by Mr. Haldane in the last of my quotations. If this position be consistently held, the soul and moving force of the universe is reduced to a self-existent system of impersonal thoughts. I have sufficiently expressed my opinion of this position in the last chapter of my book. The theory only requires, I think, to be clearly stated in order to fall to pieces of its own accord. The main, I may say the sole, purpose of my book was to clear the philosophical atmosphere on this and certain allied points by sifting the ambiguities of the Hegelian statement, and insisting on a definite answer to definite and pressing questions. It is useless to try to parry the questions, as Mr. Haldane does, under the idea of restricting ourselves to a theory of knowledge. His own statements are in the end as metaphysical as those which he would improve upon. It is, of course, perfectly legitimate to give up the metaphysical problem altogether, and to assign to philosophy simply the task of organising scientific knowledge with the aid of improved and duly criticised categories. Neo-Kantianism then becomes a species of Agnosticism, only more philosophically trained than most of the current varieties. In this direction I cannot help thinking that Mr. Haldane's remarks occasionally tend. But if this is the Neo-Kantian position, it ought to be plainly avowed. For, if so, this Hegelianism is not the constructive philosophy it has generally given itself out as being. It offers us in that case no solution of the questions which in every age have been the motive and the end of philosophy.

VI.—CRITICAL NOTICES.

Logic; or, the Morphology of Knowledge. By BERNARD BOSANQUET, M.A., formerly Fellow and Tutor of University College, Oxford. 2 Vols. Oxford: Clarendon Press, 1888. Pp. xviii., 398; viii., 240.

The alternative title of this treatise on Logic—*Morphology of Knowledge*—concisely indicates the principles and method of treatment adopted. Instead of formal classifications, dichotomies, precisely outlined definitions, we find a recognition of an all-pervading unity in the varied phases of intellectual activity. Yet the unity is not one-sided abstract simplicity, but a unity of function exhibited in diverging and converging growths. In short, the idea of structural and functional evolution is applied to the processes of Knowledge. In the general form of treatment Mr. Bosanquet thus follows in the track of Lotze; but, as we shall see, the two logicians differ considerably in working out the detailed co-ordination of parts. A brief analysis of the contents may be given.

Knowledge involves the ideas of Truth and of Meaning. First, then, "what is the relation between the human intelligence and fact or reality?" I will quote two passages which express the author's mode of treating this ever-recurring problem; because they indicate the spirit in which the whole subject is met, though, of course, a mere quotation cannot give an adequate apprehension of the philosophical position maintained. We read (p. 3): "The forms of thought have the relation which is their truth in their power to constitute a totality". Again: "The truth, the fact, the reality, may be considered, in relation to the human intelligence, as the content of a single persistent and all-embracing judgment, by which every individual intelligence affirms the ideas that form its knowledge to be true of the world which is brought home to it as real by sense-perception". We must note here the *two aspects* of the idea of truth or reality. *Psychologically*, the real "is what is brought home by sense-perception"; *logically*, the real "is what has power to constitute a totality". Of course these two aspects cannot be divorced from one another. The real cannot be *known* except as forming a system; neither can the known be *real* except as assured by perceptive experience (p. 4). Nevertheless, the duality of aspect inevitably arises in any system of philosophy. Logic elaborates the aspect of totality, but it must recognise a reference to "contact with reality in sense-perception". Now, as the author proceeds to point out, there is a contrast between the mere *entertainment* of an idea, as having a symbolic value—*i.e.*, an identical and intelligible objective reference—and the *affirma-*

tion of an idea—i.e., a reference of it to something real. To what is the reference made in the mere entertainment of an idea? The author answers (p. 5): "The world of objective reference and the world of reality are the same world, regarded in the former case as composed of isolated though determined contents, and in the latter case as composed of contents determined by systematic combination in a *single* coherent structure". It does not seem to be clearly shown why the single completed whole should necessarily be identical "with the extension and determination of the individual's *present perception*". Yet it seems that a reference—direct or indirect—to such sense-perception is necessary to constitute reality as something other than mere objectivity. A further investigation into the import of isolated ideas or names leads the author to the conclusion that (p. 13) "a name is a sign which rouses the mind to a set of activities having an identical element"; and (p. 38) that "a mere idea is the content of a reflective problematic judgment, and is referred to reality as true under unknown conditions or among unknown alternatives". Thus the name or idea only has value as an element in a proposition or judgment, and the proposition or judgment only has value in reference to reality. Naming is the outward embodiment of the act of reference or objectification of the idea, as Lotze had urged. Such objectification implies essentially *positive* content, not mere *difference* from other contents. But this *positive* content becomes *determinate* content only by distinction. Distinction, on the other hand, is meaningless without positive content which is identical in the things distinguished. Hence "distinction and identification are two sides of the same process".

A long discussion of the use of the terms Intension and Extension forms the second part of the Introduction. This contains much interesting and suggestive matter. But, after the most careful reading, I fail to understand what exact meaning the author gives to the word Intension. He writes (p. 46): "Intension is the meaning proper, the fixed content" of the [name or] idea. Again (p. 46): "Extension is the whole range of individual objects or instances to which the name applies". And this is explained by the statement (p. 47), that "in every idea the distinction between universal meaning and particular embodiment can be traced". The relation between the two terms is helped out by the unambiguous elucidation (p. 54): "In every concept the intension dictates the extension". So far the matter seems clear. But in the discussion of "mere denominations of number"—a discussion which has many points of interest—the author finds (p. 58) that "they are in a large measure antagonistic to intensional meaning". I do not follow this. In the example given—"The men in Hyde Park last Sunday were (in number) 10,000"—the content of the idea 10,000 is applied to the particular case of the collection of men in Hyde Park. In other instances the same content or intension

might be applied to such collections as books in a library, soldiers in an army, &c., &c. Here the instances of application appear as easily distinguishable from the idea applied as in the case of any other kind of idea. But the case of Proper Names presents an acknowledged difficulty which the author meets by the following solution (p. 53): "In the use of a proper name signification is a means to identification; in the use of a singular or general name signification is predicated for its own sake". This does not appear to reach the difficulty. I understand from it that the intension of a proper name is the set of attributes by which we identify the individual bearing the name. If so, the intension of any other name ought to have the same meaning. But we find, in the discussion of the concurrent variations of intension and extension (pp. 61, 62), that the intension of "falling bodies" includes—for us who know the law of gravitation—"the inverse-quadratic ratio of attraction". This, however, is not involved in our means of *identifying* falling bodies. If we include in intension all that we *know* of the attributes of a set of cases, I do not see what becomes of the statement that "in all cases intension dictates extension"; nor do I see what meaning attaches to the discussion and conclusion on Proper Names.

The real subject-matter of the treatise begins with Book i., which treats of the Judgment and of Judgment-Forms. In the general account of the Judgment Mr. Bosanquet adopts very much the language of Mr. Bradley, though (as he says) the main position is the same as that for which Mill "incisively contended". The ultimate reference in all judgment is to the real world as a whole: this, then, is always the ultimate subject. But (p. 83), "in every judgment the ultimate subject Reality is represented by a selective perception or idea, which designates a something accepted as real". In the proposition, subject, predicate and copula appear as isolated parts, and these have been falsely identified with isolated ideal contents. But the copula is in reality the mere sign of affirmation; and the reason why the finite verb is appropriated to the act of predication is that it is a miniature sentence; *i.e.*, a content referred to a real individual subject. In criticism of the view that the judgment represents a transition in time from a subject fully given but waiting for a predicate which arrives subsequently, the author shows in a lucid discussion of the question that the true transition is through judgments which may be symbolised as $s-p$, $\Sigma-\pi$, controlled all along by a continued identity $S-P$, which includes within it these differences. As long as we can recognise *continuity* in such transitions, which of course does not exclude differences, we have what should be called a Single Judgment. This has an important bearing on the author's view of the nature of Inference.

After this exposition of the general nature of judgment, an explanation follows of the scheme of judgment-forms adopted. The affiliation of forms cannot be represented in a linear series;

for each form has points of attachment with several others. The system of arrangement resembles a plant or tree, with branches starting out from different points in different directions. This "tree of knowledge" differs, however, from trees of nature in one respect, which may perhaps have some speculative interest. Its peculiarity is that it has *convergent* as well as divergent branches. I do not know that this *contrast* might not be as suggestive as Mr. Bosanquet says, in the preface, has been to him the *similarity* of forms of plants to forms of judgment.

A short abstract of the scheme may be given. The simplest form of judgment is the Judgment of Quality, which affirms an analysed ideal content of what in sense-perception arrests attention. This leads to the Demonstrative Judgment, where the subject is explicitly *here* or *now* or *this*. Such demonstratives stand for ideas, but the judgments are perfectly categorical, for the 'this' cannot be denied, and must therefore be considered as either affirmed or presupposed. The *here* and *now*, involving as they do a *there* and *then*, next give scope for the Judgment of Comparison—e.g., 'This is redder now than it was then'. Here the predication implies an identity of quality, red, including within itself differences, red and redder. But (p. 118) "a quality that changes and yet remains the same quality has passed into quantity". Such comparison is, therefore, always Quantitative Comparison. In one divergent direction we thus have the development of time and space, which (p. 122) "in the germ are mere qualities whose continuity is displayed in the judgment of comparison like other qualities". Quantitative Comparison thus leads up to Measurement. Direct measurement, or the establishment of a mere ratio, leads at once to Proportion, or the maintenance of an equality of ratios under all changing circumstances. This characteristic ratio either refers to external standards, and so is eked out by equations *ad infinitum* which exhibit an indefinite relativity, or it attaches to the structural elements within a concrete whole, and so presents (p. 135) "the simplest expression of individuality". Measurement and Enumeration being akin to one another, we are led on to the Enumerative Judgment. This is represented by (a) the Plural Judgment, which concerns an aggregate and implies something irrelevant, and so leads up to (b) the Collective Judgment, where (p. 165) the content "possesses the character of a finite whole of enumeration," and which again has its ideal in the spirit of (c) the Exhaustive Judgment, where a universal connexion of attributes is predicated. A side-development of enumeration is towards mediate counting and abstract counting, leading to the infinities Number, Space, Time. Going back along the main line of evolution to the point where individuality emerged out of proportion, we pass to the Singular Judgment, which includes the two species—the Individual Judgment, whose subject is a Proper Name, and the Corporate Judgment, whose subject is

a comprehensive totality. These are categorical, being false if their subject does not exist at the time (if any) to which the predication applies. In the Quasi-Collective Judgment we find the attempt to predicate attributes of an unlimited aggregate; but this when regarded as a numerical problem of enumeration is a contradiction, and thus "such judgments must be approached from the side of the common or continuous nature, which binds the individual units into a whole" (p. 226). These are reached by means of the Analogical Judgment, "which expresses a presumption that the content enunciated in the judgment is bound up with the characteristic individuality which forms the immediate subject" (p. 228). This is an aspect of the ordinary Generic Judgment. The reality here involved in the concrete universal is brought into clear prominence in the Individual Generic Judgment. This is fully categorical (p. 242), "containing a concrete universal which has power, in the context of the real world to which we refer it, to dictate the epoch, place and quantity of its individual embodiment". But (p. 248) "the universal judgment, when pushed to the extreme point of abstraction, becomes the Hypothetical Judgment". This involves ideally isolated attributes as opposed to self-dependent individuals. It contains a ground and consequent. A very elaborate examination of the idea of ground and its connexion with cause is given. With this we reach the termination of one direction of evolution, and we have to retrace our steps and take up the Negative Judgment.

The judgment of mere *difference* of quality is meaningless and motiveless if it has no basis of positive content. The *positive* significance of a negative judgment is found on the one hand in the *interest* of the suggestion denied, and on the other hand in the *consequence* or the *ground* of the denial. This consequence or ground can be affirmative only if a limited system of mutually exclusive contraries is recognised—contrariety only arising (p. 307) "when positive differents claim the same relation to the same system". Thus (p. 308) "perfect disjunction is the ideal inevitably involved in the nature of negation". Now we also find that the ultimate idea of *ground*—needed to support the Hypothetical Judgment—is that of "an actual system, interpreted in its bearing on its parts" (p. 264). Thus from all sides we finally reach the Disjunctive Judgment, in which are combined the characteristics of the Generic Judgment—self-subsistency, concreteness, actuality—with those of the Hypothetical Judgment—relativity, abstractness, necessity. (See also final paragraph, ii. 204.)

The second volume carries out a plan of the types of Inference similar to that of the types of Judgment. Inference is defined to be a species of Judgment which has for *differentia* the "*mediate* reference of an ideal content to reality". The theory that a *transition* from premisses to conclusion is essential, is discarded: in fact, just as the formation of a judgment is a process such that

a section taken across the interval of intellectual activity will always exhibit the judgment in one of its phases of development, so it is with an inference. Some functions of inference are fulfilled by mere psychological reproduction, and in any conscious judgment a *general* sense of necessity—not referred to any other specific judgment—is always present, but in the higher phases the sense of necessity is more explicitly referred to some ideal content within the judgment, and it thus partakes of the nature of inference. The earliest phase of explicit inference is (p. 46) that of "incomplete enumerative induction, which is an obvious result of recurrent individual judgments". This may be represented by a sort of syllogism in the third figure: *e.g.*, A, B, C, D are great lawyers; A, B, C, D had a classical education: therefore, a classical education may have [has it?] something to do with making good lawyers. This mere Enumeration passes into Analogy when we take note of the character and value of the instances in place of their mere extent. The middle term thus becomes predicate instead of subject, and we have a sort of syllogism in the second figure: *e.g.*, Great lawyers require knowledge of humanity in its various historical phases; a classical education is calculated to produce such knowledge; therefore, great lawyers are likely to have had a classical education. There is no doubt that it is right to represent Enumeration by the third and Analogy by the second figure, and not to follow Lotze in his odd attempt to invert the correspondence. But the logician, who has been trained to formalism, will be liable to feel a difficulty. Seeing that the formal fallacy involved in attempting to draw universal conclusions from such premisses will be remedied by *conversion* of one or other of them so as to yield a syllogism in Barbara, he will consider that the essential problem for Induction is simply to make the converted premiss universal, and the conclusion will then take care of itself. Now the view of the author seems to be that you must not in this way cut away the premisses from the conclusion, and so separate the inductive from the deductive part of the problem. The two premisses must be taken together as throwing light on the character of the limitation with which the universals are to be expressed. The value of the analogical argument depends on the importance of the predicate as a *general* attribute. This, again, depends on a presumption drawn either from morphology (*de facto* teleology) or from true conscious teleology. In the attempt to make inference scientific, we must employ a method of *perceptive analysis*. The correlation of these methods is very carefully explained and illustrated by the investigation of the adaptation of the bee ophrys for self-fertilisation. The judicious combination of theory and detail with which this illustration is worked out renders it one of the most instructive examples of scientific method that I have met. The highest phase of Induction is Inferential Explanation. The author gives a very excellent

discussion of this subject. We reach at last Concrete Systematic Inference. Here we have a combination of the two diverging characteristics of intellectual development—the abstract or hypothetical and the concrete or categorical. This combination is exhibited in the structure of the first figure. The middle term being *predicate* of the minor premiss is exhibited as determined by *ideal content*; but being *subject* of the major premiss, it is exhibited as a definitely organised *reality*. This combination of divergent characteristics is only in the fullest sense possible in real teleology, where the synthesis of parts into a system is dominated and limited by a conscious purpose. Such a system is indicated (as we saw in vol. i.) by the form of the Disjunctive Judgment, the members of which mutually determine one another within the unity of the system.

The idea—which has its origin in Kant—that the forms of knowledge culminate in Disjunction, is the characteristic feature of the treatise. But surely this is an illusion. The recognition of system requires the *conjunctive* element just as much as the disjunctive. For, in order that “the import of a disjunction may be developed in a series of hypotheticals” having positive content, each member of the disjunction must itself be a Conjunction. Thus the goal of knowledge is a system which is *abc* or *def* or ..., and which yields the reciprocal hypotheticals—If *a*, then *b*, &c. This goal may be compared with the starting-point of Formal Logic, *viz.*, a system which is *abc* or *ab not-c* or ..., and which is without *material* value until for mere negative contradictories we substitute positive contraries.

In this brief review of the main outlines of Mr. Bosanquet's treatise I have said little on his treatment of the divergent mathematical developments. I think every reader must feel that this is the least satisfactory portion of the work. It was perhaps unavoidable that arithmetical, algebraical and geometrical principles should take the position assigned to them. But it is certainly inconvenient to find these matters interpolated between the Individual and the Universal Judgment, and, again, between Enumerative and Analogical Induction. The correlation of these mathematical inquiries seems forced and artificial. But, beyond this, the particular treatment of the questions raised does not show (I think) an adequate grasp of mathematical principles, and appears to advance the subject but little. The fundamental principle of probability, which is treated in connexion with the disjunctive judgment, seems to me, however, to be expounded in a sound form; though the author's criticisms of Dr. Venn hardly show an adequate comprehension of that writer's meaning. The two volumes conclude each with a chapter which really collects in a new form the principles underlying the whole. That on “Modality” concludes the treatment of Judgment; and that on “The Postulates of Knowledge” concludes the treatment of Inference. Taking the treatise as a whole, it will be found to

present a remarkable unity. Each discussion tends to develop in a new phase the underlying principles of the work. Though at present I should wish to suspend judgment as to the correctness of many of the details, yet the whole mode of treatment is profoundly interesting and suggestive. Mr. Bosanquet acknowledges with equal candour his indebtedness to Mill as to Lotze, to Jevons as to Sigwart. The most gratifying feeling with which we peruse the work is the conviction that it points to a convergence of view between thinkers trained in the most opposed schools. The philosophical descendants of Hume and of Kant here really 'meet and join hands': not in virtue of relegating their differences to a more appropriate field of combat than *Logic* (as Mill vainly endeavoured), but by boldly following out their tenets to a plain issue.

W. E. JOHNSON.

ΠΛΑΤΩΝΟΣ ΤΙΜΑΙΟΣ: *The Timæus of Plato*. Edited, with Introduction and Notes, by R. D. ARCHER-HIND, M.A., Fellow of Trinity College, Cambridge. London: Macmillan & Co., 1888. Pp. vii., 358.

At last English students of Plato have an adequate edition of the *Timæus*, of all his dialogues the most difficult, and in some respects the most interesting. No one can read Mr. Archer-Hind's book without feeling that it has been a labour of love, but those who can appreciate how great the labour must have been will be none the less grateful to him. The edition consists of the Greek text with an English translation on the opposite page, an introduction and a commentary. The chief object of the translation, we are told, was to relieve the notes from the mass of "linguistic exegesis" which they must otherwise have contained, and thus to leave room in them for a full treatment of philosophical difficulties. No two lovers of Plato will probably ever agree as to how he ought to be translated, but Mr. Archer-Hind has certainly succeeded in his primary object, for he never leaves us in doubt as to how he understands the text; and though, as must be the case with a translation which partly serves the purpose of an exegetical commentary, his English is sometimes as difficult as the original, it has sufficient characteristic flavour to be good reading even to those who know no Greek. As to the commentary, while it is impossible that it should satisfy all the wants and expectations with which different readers come to a work so many-sided as the *Timæus*, it may certainly be said that it seldom misses or shirks a real difficulty, that it never errs in superfluity, and that it works out clearly and consistently the editor's view of the import of the dialogue. Personally I confess that I would gladly exchange the numerous citations and criticisms of Aristotle for some more of Mr. Archer-Hind's mind about Plato. If we were tracing the history of Greek physical

speculation, we could not have too much of such parallel passages ; but in studying a book so full of great thoughts which need and repay explanation and development, I grudge every note which takes the mind away from these instead of concentrating it upon them. Nothing has so much interfered with the understanding of Plato as the habit of reading him through the eyes of Aristotle. We may agree or disagree with Aristotle's criticisms, but one thing is certain, that the Plato to whom they relate is only a fragment of the real Plato, and a fragment which cannot compare in interest and importance with that remainder of which Aristotle gives no hint. On the other hand, some readers will probably be disappointed that Mr. Archer-Hind has made comparatively so little use in his commentary of other dialogues of Plato. He would doubtless reply that in the introduction he has sufficiently pointed out what he conceives to be the place of the *Timæus* in the Platonic system. Still it is probably true that the best commentator on Plato is Plato himself, and he might have given greater variety and also greater cumulative effect to his interpretation of the *Timæus*, which he regards as "the focus to which the rays of Plato's thought converge," if he had enabled his readers to see more of what the rays look like before their convergence.

Leaving, however, these points of secondary importance, let us turn to what has evidently most interested the editor himself and is most likely to interest readers of *MIND*, "the philosophical significance of the dialogue and its bearing on the Platonic system," which, as he tells us, it is the chief object of his edition to examine. Every philosopher offers special difficulties to his interpreters, arising from the idiosyncrasies of his mind and method. The interpreter of Plato, when he has satisfied himself as to what dialogues he shall consider genuine, is at once met by the question in what relation those dialogues stand to one another ; and, however various the investigations may be to which this question gives rise, it will always ultimately emerge in the form, How far, and in what sense, do the dialogues form a coherent system of thought ? Consistency in philosophy is at least as debatable a matter as it is in politics ; the most uniform phraseology and the most orderly treatment do not necessarily imply it, nor does the greatest apparent absence of uniformity or order necessarily exclude it. The interpreter of a great philosopher comes to his work with certain presuppositions ; he thinks in more or less fixed grooves, determined by the culture of his age. Much of this culture is perhaps derived from the writer whom he is expounding, and in the process of derivation it has both lost and gained. Thus he is constantly embarrassed by the consciousness of being partly in front of his author, partly behind him ; at one moment he will fear that he is finding too much in him, at another that he is cutting him down to the measure of his own conventionality. This is peculiarly likely to be the case

in dealing with a work like the *Timæus*, which lends itself at every point to the most profound and to the most trivial interpretation. Mr. Archer-Hind tells us that in arriving at his conclusions he has "made but two postulates—that Plato does not talk at random, and that he does not contradict himself". This may seem a modest demand, but it is by no means a superfluous one. There have been enthusiastic admirers of Plato who have emphasised and almost extolled his inconsistency; and, though we can hardly suppose that they take inconsistency very seriously when they assume it to be compatible with the highest speculative genius, it is well to be occasionally reminded that if a writer is a philosopher he must be treated as such.

But, if it be admitted that Plato was a philosopher before he was anything else, it must also be admitted that he philosophised in a way of his own; and the real difficulty begins when we have to determine what is "self-contradiction" in a writer who runs through the whole diapason of style, and often combines quite different tones in the same work. We may believe, with Mr. Archer-Hind, that "he has his imagination, even at its wildest flight, perfectly under control," and that "the dithyrambs of the *Timæus* are as severely logical as the plain prose of the *Parmenides*"; but the fact remains that the logic of imagination is other than the logic of science and that, if people quarrel over the principles of the latter, they will quarrel much more over those of the former. It is therefore of great importance that an interpreter of Plato should be clear in his mind as to the relation between (to use the current antithesis) the matter and the form of his author. Mr. Archer-Hind shows himself to be fully alive to this fact, and yet he seems hardly to have availed himself sufficiently of the opportunity of grappling with the problem, a problem which confronts all students of Plato and which the *Timæus* presents in a peculiarly crucial instance. He points out indeed repeatedly and emphatically what Plato, as he believes, did *not* mean; that "the process represented in the *Timæus* is not to be conceived as occupying time or as having anything whatsoever to do with time"; that "the whole story is but a symbolisation of the eternal process of thought, which is and does not become," and that to suppose anything else is to make Plato stultify himself. But what exactly does he understand by "symbolisation"? On p. 32 he represents the whole world of objects in space and time as, in Plato's sense, "symbolic"; "what is true in them is not the representation in space and time, but the reality of existence which they symbolise"; each one of them "is the *εἰκὼν* or image of which the unity of being is the *παράδειγμα* or original". But on p. 116 he speaks of the description of the soul as "returning into itself" (*αὐτὴ ἀνακκλυνμένη πρὸς αὐτήν*) as being "merely Plato's metaphor describing the activity of thought"; and on p. 114 we read, "Plato does not of course mean that the immaterial and indivisible essence of soul

is composed of circles and distributed in mathematical proportions. The circle is with him a common symbol of the activity of thought: and by assigning the harmonic numbers to soul he declares that whatever relations or harmonies, mathematical or otherwise, are found in the world of space and time, these are the natural expression in material terms of some eternal law of soul." But is the last part of this passage consistent with the first and with the former passage? The last part seems to mean (what is surely the truth) that Plato regarded the movements of the stars as actual modes of psychical activity; the first part seems to suggest that he employed circular movement as an *illustration* (not an *expression*) of such activity. In this connexion Plato's own utterances on the subject of symbolism deserve, I think, a fuller treatment than they have received. The passage 28a-29c implies an inseparable connexion in his mind between "what has come to be" (γεγονός) and "image" (εἰκών); he passes almost as a matter of course from the conception of a thing as brought into being by a cause other than itself to the conception of it as produced on a certain pattern, the connexion apparently being that in both points of view the thing suggests or relates to something beyond itself, in which it finds its full meaning and explanation. (Accordingly, in Mr. Archer-Hind's analysis of the passage on p. 84, "All that comes to be comes from some cause; so therefore does the universe. Also it must be a likeness of something," I would substitute 'therefore' for 'also'.) The next point to be noticed is the statement, obviously intended to be a corollary from the previous sentences, that in treating of that which has come to be and is of the nature of an image we must employ language which is also of the nature of an image (εἰκόρες λόγοι). In his analysis Mr. Archer-Hind happily expresses the connexion between εἰκών and εἰκώς ("with those words which treat of the likeness we must be content if they are likely"), but he does not follow up his own suggestion. Plato seems to mean that, so long as truth is apprehended through an image, *i.e.*, through the medium of something else, it is only 'probable' or hypothetical, and the words which express it must be correspondingly indirect and suggestive merely. In perfect knowledge there would be no image, and in language which expressed perfect knowledge the word would be the thing. This illustrates and is illustrated by the use of εἰκασία and cognate terms in the *Republic*, and should also, I think, be taken in connexion with the difficult passage in the *Timæus*, 52c, concerning spatiality. In this passage 'that which really is' is again contrasted with that which is an 'image,' the ultimate ground of contrast being that, while the former is simply itself, the latter is 'the moving appearance of something else, and cannot help therefore being in something else'. Being in space or being 'in another' is thus treated as convertible with being an image, and this again with being itself and not itself at the same

time. If I understand Mr. Archer-Hind rightly, he takes τὸ μὲν and τὸ δέ in this passage to refer to 'type' and 'image' respectively; "since," he says in the note, "the image is not identical with the type, it must be manifested in some mode external to the type, that it may be numerically different," and he supposes Plato to be denying a previous doctrine that the idea is "inherent in the particulars". But I do not see how the image can be said to be "numerically" different from the type, for the type is not numerable any more than it is spatial. What Plato seems to mean is that the real individuality of a thing (its being what it is and not something else) is not, as we are apt to imagine, spatial distinctness; that on the contrary spatial distinctness is just what prevents a thing from being truly its individual self, implying as it does continual reference to something else. And unless "inherence" is taken to mean spatial inclusion, he seems not to deny but implicitly to assert the inherence of the 'type' in its 'images'; for an image is *ex hypothesi* an image of something, and the type is that which is imaged in it. Thus his point in representing the world as an 'image' throughout the dialogue is that all truth short of absolute truth is symbolic, a something 'of' or 'in' a something else, and therefore hypothetical.

It is impossible to pursue this subject further here, and too little space is already left for doing anything like justice to what may be fairly called the main thesis of Mr. Archer-Hind's book, that "the *Timæus*, and the *Timæus* alone, enables us to recognise Platonism as a complete and coherent scheme of monistic idealism". What he understands by this is summed up (p. 33) as follows:—"The one universal thought evolves itself into a multitude of finite intelligences, which are so constituted as to apprehend not only by pure reason, but also by what we call the senses, with all their attendant subjective phenomena of time and space. These sensible phenomena group themselves into a multitude of kinds, each kind representing or symbolising the universal thought in some determinate aspect. It is the universal itself which in each of these aspects constitutes an idea or type, immaterial or eternal, whereof phenomena are the material and temporal representations; the phenomena do in fact more or less faithfully express the timeless and spaceless in terms of space and time. Thus the αὐτὸ ἀγathon is the ideas, and the ideas are the phenomena, which are merely a mode of their manifestation to finite intelligence." The introduction is designed to show how such a conception unites and fulfils the various divergent impulses of pre-Platonic speculation. Traversing so great a range of subjects, it is necessarily very condensed, and could not be understood without a good deal of previous knowledge. The account of Socrates, and of Plato's metaphysical debt to him, seems to me the only unsatisfactory part of it. The statement (p. 14), that Socrates "substituted concepts for things as the object of cognition," is, of course, true, if it merely means that he investi-

gated moral instead of physical objects; but if (as would appear to be the case) it is meant to characterise a certain logical theory or attitude of mind on the part of Socrates, to imply, *e.g.*, that he was a 'conceptualist,' it is surely misleading. But apart from this, I cannot think that Mr. Archer-Hind is right in ignoring the effect of the dialectic of Socrates on his disciple. Plato's treatment of the problem of One and Many is quite inseparable from his conception of dialectic; it is in the 'word,' uttered or thought, that the interaction of unity and multiplicity takes place to which Mr. Archer-Hind justly gives so much prominence in his system; and if, without detracting from his originality, we are to talk of his debt to his predecessors, he can hardly have owed more to anyone than to the man who exhibited with apparently unique power, not in theory but in living contact with the mind of his age, the principle that truth is always an identity of differences. What else, indeed, is the conception of the life of the world in the *Timæus*, but that it is the 'converse' of an eternal mind, the dialectical spirit for ever questioning and for ever answering itself? Mr. Archer-Hind himself refers in his notes on the passage about the soul (p. 117) to some of the classical passages about dialectic, but he does not bring out the full significance of the parallel.

I cannot help thinking that this neglect of Plato's conception of the dialectical movement of thought shows itself in his interpretation of the account of the soul. There is probably no method of dealing with this difficult passage (35a) to which many objections cannot be raised. I will only observe that Mr. Archer-Hind seems to me to do violence to the Greek in taking *ἐν μέσῳ* with *τῆς τε ταύτου φύσεως καὶ τῆς θατέρου* instead of with *τῆς ἀμερίστου κ.τ.λ.*, and that in the clause *καὶ κατὰ ταῦτα ἐνείστηκεν ἐν μέσῳ τοῦ τε ἀμερούς αὐτῶν καὶ τοῦ κατὰ τὰ σώματα μεριστοῦ* he does not translate *αὐτῶν*, which I suppose refers to *τὸ αὐτό* and *θάτερον*, and implies that both "indivisible and divisible substance" come under the categories of identity and difference. The important point is the relation of the indivisible and divisible substance to the same and the different. Mr. Archer-Hind considers the former to be "special applications" of the latter, "identical though not coextensive" with them. But if one is subordinate to the other, why did Plato represent them all as *co-ordinate* constituents of soul? and if they are identical, why have they to be "compounded" to make soul? Mr. Archer-Hind makes soul as substance "arise from the union" of sameness and difference, but Plato makes soul arise from the union of indivisible and divisible substance + sameness and difference. We seem to have a clue to his meaning when he comes to describe the activity or "movement" of soul. He describes the movement as circular, returning into itself, and this circular movement he represents as having two forms, that of sameness and that of difference. In other words, sameness and difference are the elementary forms of

discursive thought (cp. 40a and 44a), to which all judgments are ultimately reducible, and in the consciousness of which the substance of soul moves eternally out of and into itself. Mr. Archer-Hind, it is to be observed, is himself at pains to distinguish two points of view from which soul may be regarded, that of "existence" and that of "activity" (pp. 43, 106, 107), but he does not take what seems to be the natural course of referring *οὐσία* to the former, *ταύτόν* and *θάτερον* to the latter.

There are many other points into which it would be interesting to follow him if space allowed, especially his treatment of Plato's conceptions of the creative mind, of evil, of necessity, of materiality. In all these I venture to think that he is a little too much dominated by a single formula, and has not surrendered himself as freely as he might have done to the wealth of suggestive imagery in which Plato has clothed his thoughts. But I must not conclude without repeating that we all owe him a real debt for what he has done, and if I have expressed some differences of opinion, I have done so, to adopt his own quotation, *οὐκ ἐχθρὸς ὢν ἀλλὰ φίλος*.

R. L. NETTLESHIP.

Das Wesen der Seele und die Natur der geistigen Vorgänge im Lichte der Philosophie seit Kant und ihrer grundlegenden Theorien historisch-kritisch dargestellt. Von Dr. J. H. WITTE, Professor an der Universität in Bonn. Halle-Saale: C. E. M. Pfeffer (R. Stricker), 1888. Pp. xvi., 336.

Prof. Witte's critical history of the post-Kantian theories of the soul was written, he tells us, not least with the aim of combating "the positivist superstition" that there can be a "psychology without the soul," that is, without the assumption of a "soul-substance". In psychology and philosophy equally he finds this assumption to be necessary. Against "English-French Empiricism," in which "the positivistic tendency" has its expression, he champions "the Kantian *a priori*". The doctrine to which his historico-critical study seems to him to lead is that of Kant cleared of all "hypercriticism and scepticism". To this doctrine he gives the name of "Scientific Realism". He finds it already stated, though not with perfect consistency, in the writings of Schleiermacher, Trendelenburg, Lotze and F. Harms. Its fundamental positions are the substantiality at once of the soul and of external things and the existence of *a priori* elements of thought that result from the activity of a "pre-empirical consciousness". Kant freed "the *a priori*" from all temporal reference. Not "the innate," but that which proceeds from the self-activity of consciousness, is what Kant calls *a priori*. This *a priori* presupposes a "matter," which becomes knowledge by means of the forms and activities of the mind. Critical reflection on the self-activity of the spirit reveals to us "with imme-

diante evidence and certitude," "the substantiality of original consciousness," and at the same time, beyond the states of the soul itself, the existence of substantial objects.

The author expounds and criticises the doctrines over which his survey ranges, not in the chronological order, but according to a classification in which Materialism, as the doctrine most remote from that of the substantiality of the soul, is placed first and "Scientific Realism" last, the intermediate terms being "Sceptical Positivism," "Kantianism and Criticism," "Absolute Idealism and Modern Realism" (of the "semi-dogmatic" as distinguished from the "scientific" kind). At the beginning of the section on "Kantianism and Criticism," an account is given of what the author holds to be Kant's own doctrine of "objective Criticism" as distinguished from the "subjective Criticism" into which it has tended to pass in the hands of the Neo-Kantians (pp. 22-43). This doctrine of "objective Criticism," as Prof. Witte conceives it, is almost identical with "Scientific Realism". Kant's speculative theory, he admits, remains to a certain extent "phenomenalistic"; but he was able to escape from phenomenalism altogether by means of the "metaphysical Criticism" of the Practical Reason. Even in theoretical philosophy, however, Kant's position is doubly distinguished from that of "subjective Criticism". "As well by the universal validity of its necessity of knowledge, which refers to something that is grounded not only in the nature of the single subject but in the relation of all subjects to an appearing *object*, as also by the world of things-in-themselves, which stands at the background of all phenomena, the Kantian Criticism leads far beyond a mere Subjectivism and purely relativistic Phenomenalism" (p. 40).

Against Materialism Prof. Witte affirms, as the root-idea of Criticism, that nothing can be thought in an objectively valid manner, without relation to consciousness, nor can consciousness be deduced from an object independent of it (p. 5). "The doubleness of inner and outer experience" is "the starting-point of all human knowledge and science". Materialism rests on experience so far as it rightly concludes from the presence of "external phenomena" to the existence of "corporeal substances"; but that *only* material substances exist is an unjustifiable dogma of materialism, comparable to the idealistic dogma that reduces external phenomena to mere states of the mental substance without which, as it rightly holds, internal phenomena cannot be explained.

The doctrine described by the author (not with any special appropriateness) as "Sceptical Positivism" is that of Prof. Wundt, against whom he contends that the conception of substance is not first formed in the case of material objects and then carried over to mental states, but that the conceptions of the substance of the soul and of material objects are formed independently.

After expounding the Kantian position, Prof. Witte proceeds first, among Kant's successors, to Schopenhauer, by whom "objective Criticism" was most consistently transformed into "subjective Criticism". He then goes on to those Neo-Kantians who, while stating their position in a more moderate form, agree with one another and with Schopenhauer "in the transformation of the Kantian phenomenon into a merely individual-subjective representation, in the reduction of the difference of constant or permanent and of changing phenomena to a merely relative distinction, finally, in getting rid of things-in-themselves". (Schopenhauer, it may be remarked, though he doubtless got rid of what the author means by "things-in-themselves," nevertheless retained the term.) In opposition to "Subjectivism," Prof. Witte lays down a definition of truth as "critically justified harmony of the contents of our thought, grasped with subjective certitude, with a reality which always in part extends beyond the merely subjective activity of thought". The existence of the Ego, again, cannot consist, as has been contended from the point of view of subjective Criticism, in mere "reflective consciousness". Reflective consciousness implies "reflective *being*".

At the end of the section on "Kantianism and Criticism" comes a long sub-section (pp. 88-229) on "Nominalistic Phenomenalism and Empiricism," represented by the physicist E. Mach and by "French-English Positivism," under which head are included, besides Comte, J. S. Mill, Spencer and Ribot, as chiefs of "the extreme foreign directions," Brentano, Giżycki, Stumpf and Lipps, as representatives of Association-psychology in Germany. Prof. Witte here somewhat exaggerates the influence of Comte on English experiential philosophers (see p. 110). On the other hand, he reproaches them with their neglect of German theory of knowledge, which alone can show how and why sensations are "no primary states of consciousness in the sense of ultimate subjective elements, but merely the temporally first phenomena of which we have conscious experience" (p. 134). Like the English Neo-Kantians, he is never tired of reiterating that "there are no sensations as immediately given contents, but only as mentally elaborated impressions of consciousness," that a "fact" is never "something purely empirical," but is always "a product of sense-impression and mental labour, by which the Ego appropriates something" (p. 219). English Association-psychology, he urges, has no adequate account to give of psychical causality. Sensations are for it, if materialism be rejected, "creations out of nothing". "Between the physiological Scylla of a purely materialistic explanation and the dogmatic-metaphysical Charybdis of an entirely idealistic basis, only the Critical thinker can steer." For the Critical point of view, sensations are "not creations out of nothing, but out of the ground of pre-empirical consciousness" (p. 141). They are results of the "self-active reaction of the Ego upon sense-stimuli,—be these external

or be they self-affections of the Ego" (p. 192). If sensation cannot be explained without an "original activity of a pre-empirical consciousness," "a substantial, pre-empirical unity of consciousness, lying at the root of all experiences of the Ego," much less can memory and will. Time and causality, which are assumed without explanation by Association-psychology, can only be explained as products of *a priori* functions, and these imply the substantiality of the soul.¹

The author next goes on to the "Absolute Idealism" of Fichte, Schelling and Hegel, which makes the "soul-substance" a "relatively constant real unity in the process of becoming," and affirms "psychical causality" as a "metaphysical dogma". The doctrines of Absolute Idealism, though "dogmatic," are not to be called dogmatic precisely in the sense of pre-Kantian Rationalism. They have a common starting-point with Kantian Criticism, *viz.*, "the conviction that all things known by us and knowable for us are dependent on the nature of a consciousness lying before all experience" (p. 231). The difference is that, alike for the "ethical" Idealism of Fichte, the "physical" Idealism of Schelling, and the "logical" Idealism of Hegel, "consciousness embraces all being," while for Criticism there is something outside consciousness. In essence, however, all these forms of Idealism are as uncritical as Materialism; for to make external processes only secondary results of the internal is as uncritical as to make internal experiences only accompanying phenomena of the external (p. 253).

¹ Over thirty pages at the end of this section are devoted to an examination of the doctrine of Prof. Th. Lipps as set forth in his *Grundtatsachen des Seelenlebens*. As that work was reviewed by me in MIND x. 605, and as the author, in MIND xi. 146, protested, among other things, against being classified too exclusively with German psychologists, when he has really been influenced so much by English Associationism, a word may be said here by way of elucidation. Prof. Lipps's psychology seems to be, as a matter of fact, intermediate between Association-psychology and the Faculty-doctrine. His agreement with "French-English Positivism," as regards the empirical origin of ideas of substance, is pointed out by Prof. Witte, who is able, however, to oppose many of his positions to those of other "Positivists". In particular he commends him for retaining the old faculties in his psychology under the name of "powers" and "dispositions,"—a point in which he diverges both from Herbart and from English Associationists; although, as Prof. Witte remarks (p. 201 n.), he follows the order of the Herbartian metaphysics in his *Grundtatsachen*, and although he claims to have worked out "a thorough-going Association-psychology" (MIND xi. 147). His language about "powers" and "dispositions" is not altogether consistent, as Prof. Witte shows (p. 213); but the retention of the Faculty-doctrine separates him formally from the Associationists. This may serve to explain the omission of his reviewer in MIND to notice the relation of his book to English psychology. Naturally an English critic is most struck with what is not English in the book, and a German critic with what is not German. At the same time, I am bound to acknowledge that justice was by no means done to the detail of Prof. Lipps's work.

Uncritical in another way is "the semi-dogmatic Realism of Fries, Herbart and Beneke". The difference between the dogmatism of Herbart and of the Absolute Idealists is that for Herbart the real is "substantial," while for Fichte, Schelling and Hegel it is "causal," that is, belongs to a process. "The complete non-recognition of the pre-empirical consciousness and its *a priori* factors marks the fundamental error and the uncritical moment of Herbart's doctrine, which are the grounds of all other defects, such as the unconditional rejection of the assumption of psychical powers and the purely associative and mechanical conception of psychical connexions and changes in the sense of positivistic empiricism" (p. 256). Herbart and Beneke, however, are in the right as against Kant in contending for the possibility of a scientific theory of "internal experience and perception" (pp. 256, 266). While Herbart is dogmatic and idealistic in his assertion of the existence of the soul as a "substantial thing-in-itself," he is "empiristic, even materialistic," in his explanation of the changes of this substance. With his view that sensations are "original and simple representations" he falls into the error of English Associationism.

The "Scientific Realists," finally, who come nearest to a true theory of the soul, "approach in different manners and degrees the standpoint of unprejudiced and natural consciousness, for which the content of its perceptions as grasped by thought is something real. This standpoint, however, they take up not naively, but on the ground of a historico-critical reflection that has made its way through the methodical doubt of a scientific scepticism" (p. 281). The general philosophical bearings of this doctrine we have already seen.

The name "Scientific Realism," though not perhaps quite in the sense intended, is a sufficiently accurate designation of the author's position. His doctrine is, in fact, the realism of objective science and daily life as opposed to philosophical idealism. Still more exactly it may be defined as 'semi-dogmatic dualism'. For, in common with the doctrines called by Prof. Witte "semi-dogmatic," it has a Kantian starting-point, while in essence it is the ordinary dualism that claims to be an immediate datum of "unprejudiced and natural consciousness". The peculiarity of Prof. Witte's position is that, besides making this claim on behalf of his dualism, he also calls it "critical," and even goes so far as to call all other doctrines, in some ill-defined sense, "uncritical". But this is not to appropriate the results of "theory of knowledge". It is practically to ignore them.

In his polemic against Experientialism, though on the whole it cannot be called formidable, Prof. Witte does occasionally make points; but it is not the fault of the English "reaction" (Rückschlag) of which he expresses high approval (Preface, pp. i.-ii.), if these points are not already perfectly familiar to us. The objections to the traditional English philosophy

from the Kantian point of view have not been left altogether unnoticed by experiential thinkers ; and the Neo-Kantians themselves are beginning to find out the defects of the positive metaphysical doctrine constructed in England on the lines laid down by Kant's German successors. Prof. Witte's own statement of the *a priori* doctrine, so far as it differs from other recent statements, differs in being less plausible. To talk of "pre-empirical consciousness" seems very like a return to the crudest form of the doctrine of "innate ideas". What is to be said of a "consciousness" existing "before experience"? Is there any difference between such a consciousness and one that is non-existent?

The doctrine of the substantiality of the soul is no doubt separable both from the author's dualism and from his doctrine of a "pre-empirical consciousness". That it is a necessary conception, however, either in psychology or philosophy, his arguments do not prove. He brings no philosophical arguments for it that do not depend on his acceptance of untested "deliverances of consciousness"; and in psychology the effect of the arguments is rather against the necessity of the assumption than in its favour. It is noteworthy, for example, that he finds a certain inconsistency between the distinctively scientific part of the psychology of the Herbartians and their doctrine of the soul. English psychology he expressly opposes on the ground that it assumes no substratum for consciousness except the organism, and that its laws of association are not deduced from the nature of the soul, but are mere empirical laws. French psychology, as represented by M. Ribot, falls under a similar condemnation. According to Prof. Witte's own contentions, therefore, it is not scientific psychology, but the psychology of "powers" and "faculties" that requires the assumption of a "bearer" of consciousness in the sense in which he maintains it. Whatever may remain to be said for the assumption in philosophy, this seems to be conclusive against its scientific value.

THOMAS WHITTAKER.

VII.—NEW BOOKS.

[These Notes (by various hands) do not exclude Critical Notices later on.]

Works of THOMAS HILL GREEN, Late Fellow of Balliol College, and Whyte's Professor of Moral Philosophy in the University of Oxford. Edited by R. L. NETTLESHIP, Fellow of Balliol College, Oxford. Vol. iii. "Miscellanies and Memoir." With a Portrait. London: Longmans, Green & Co., 1888. Pp. clxi., 479.

This volume completes the collected edition of Green's works (exclusive of the *Prolegomena to Ethics*) begun in 1885. There were left from the former volumes (see MIND x. 461, xi. 432, xii. 93) to be brought together a number of philosophical papers and reviews, with the special religious addresses and (in extract) New Testament lectures which Green, though a layman, held it part of his tutorial duty to deliver. The volume adds also four historical lectures (from 1867) on the English Commonwealth, one discourse on present-day politics, and three or four lectures on school-reform—a field of action in which he laboured to the last from the time when, in 1865-6, he was employed to report on endowed grammar schools in the midlands. Rather more than half of all that is now printed has before, in one way or another, seen the light. The philosophical student has especially to welcome the reproduction of the two *N. British Review* articles (1866 and 1868), on "The Philosophy of Aristotle" and "Popular Philosophy in its relation to Life," which first announced the rise of a new and independent thinker. On the religious addresses, as on his philosophical work and the aims of his life generally, all needful or even desirable light is thrown in the very remarkable memoir with which, in 150 closely-printed pages at the beginning of the volume, the editor, Mr. R. L. Nettleship, crowns the service rendered to his master's memory. So perfectly satisfactory and suitable a record of a philosopher's life and work, presented shortly after his death as a guide to the understanding of his writings, it would be hard to match in the case of any other. One cannot too much admire either the judicious reduction of the biographical details or the pregnant expression (after Green's own manner) given to the philosophical ideas. The writing of these pages can have been no light work, and, if they are not always easy reading, they are always full of deepest interest and as effective as they could be for the end in view. It is not the least evidence of Green's extraordinary power over other men that he should have drawn forth such a memoir.

Physical Realism: Being an Analytical Philosophy from the Physical Objects of Science to the Physical Data of Sense. By THOMAS CASE, M.A., Fellow and Senior Tutor, Corpus Christi College, &c. London: Longmans, Green & Co., 1888. Pp. 387.

This book is in two parts, the first (cc. i.-iv., pp. 3-97) setting forth the author's doctrine of "Physical Realism," the second (cc. v.-x., pp. 101-382) examining the various doctrines of "Psychological Idealism," from Descartes, through Locke, Berkeley and Hume, to Kant. There is an Appendix (pp. 382-7) giving "Ueberweg's Summary of the *Critique*." The author's aim is to show the inconsistency of "Psychological Idealism," whether "Pure" or "Cosmothetic," with physical science, and to establish a "new Realism" in its place. "The stream of human

discovery," he says (p. 375), "has been like a river, part of which escapes into marshes, while the main channel flows on into the sea; so philosophy, the perennial sources of which are to be found in Greek philosophy and sciences, speculative and practical, has in modern times been partly diverted into the marshes of idealism, while the main stream has expanded into the natural philosophy of Copernicus and Kepler, Bacon and Galileo, Descartes and Newton, and perpetually issues in discoveries and inventions." The "new Realism" "may be expressed in two propositions: there are physical objects of science in the external world; therefore there are, as data to infer them, physical objects of sense in the internal nervous system. It is a *via media* between intuitive realism and the hypothetical realism of the cosmothetic idealist". With the first, it "holds an immediate perception of a physical world," but of an "internal," not an external, physical world. With the second, it holds "the inferential perception of the physical world beyond myself," but from physical, not psychical, data. Its method is to "begin with the more knowable". "Now every mental philosopher is an adult man, and every adult man is more certain what he now knows, than how he originally came to know it, of the discoveries of science than of 'the secret springs and principles by which the human mind is actuated in its operation,' of the known objects than of the sensible data. Accordingly, as in the science of nature we must generally begin with present facts and go backwards to the *causæ essendi*, so in the science of knowledge we must generally begin with the facts of scientific knowledge and go backwards to the *causæ cognoscendi*. Modern philosophers have made the mistake of attempting to repeat the synthesis of knowledge from the original data of the child and the race. But we must rather retrace our steps from the present to the past; instead of trying to follow the synthesis of knowledge from an unknown beginning, we must make an analysis from the present objects of scientific knowledge to the original data of sense. In a word, our method must be an analysis from science to sense." Critical Notice will follow.

Moral Philosophy or Ethics and Natural Law. By JOSEPH RICKABY, S.J. ("Manuals of Catholic Philosophy.") London: Longmans, Green & Co., 1888. Pp. viii., 376.

This manual, being referred to a series, will apparently be followed by others written like itself, "with studious regard to the mind of the Catholic Church and to the teaching of St. Thomas". It gives the substance of a course delivered for eight successive years to the scholastics of the Society of Jesus at Stonyhurst. Critical Notice of it, by the side of the ethical manual of an American Protestant divine, President E. G. Robinson (see MIND No. 51, p. 450), was intended for this No., but is unavoidably held over till the next.

Nature and Man. Essays Scientific and Philosophical by WILLIAM B. CARPENTER, C.B., M.D., LL.D., F.R.S. With an Introductory Memoir by J. ESTLIN CARPENTER, M.A. London: Kegan Paul, Trench & Co., 1888. Pp. vi., 483.

The memoir by Dr. Carpenter's son with which this volume begins (pp. 1-152) is in its way not less effective than Mr. Nettleship's account of Green noticed above. Carpenter was a very different man, leading a life of rather varied public activity and doing his chief work in the field of natural science. There was, thus, somewhat more to recount in the way of biographic incident, and there was no strain of subtle philosophical thought to be tracked out and brought into view. Still, his

scientific work, pursued with singular ardour from early youth to an advanced age, had for him always a certain philosophical significance; and this his biographer has succeeded in bringing forward with excellent effect, while a graphic picture, not overdone or underdone, is given of a most strenuous life and interesting character. The papers collected under the title *Nature and Man* in the body of the volume—reproduced whole or by extract from serial publications over a period of more than 40 years—show well the kind of philosophic purpose that gave a peculiar elevation to Carpenter's scientific work. He became as anxious to find the secret of man's difference from nature as at starting he had laboured among the foremost to bring man (for purposes of scientific inquiry) into relation with nature. Leaving aside one paper on "The Deep Sea and its Contents," which also is not without relevance to the general stream of argument, the collection falls into four parts. Some papers (1838-57) are first given mainly physiological, but still not without a fore-reaching implication. Next follow three others (1872-76), bringing expressly into view the subjective element in all objective apprehension or inference. Two essays are concerned with so-called "Human Automatism," as this got dogmatic expression in certain quarters towards 1875-6. Finally, in four papers (1880-84) are set forth what the author took to be the theological outcome of the newer scientific inquiry in which he had borne no small part. How—to mention but one point, on which Prof. Estlin Carpenter lays stress in the memorial sketch—it was exactly by his physiological work that Carpenter was led to abandon his early determinism for a doctrine of "self-direction," one has some difficulty in seeing; but the whole series of papers, so judiciously selected and ordered, well deserved republication in the more permanent form, whether as a record of individual achievement or as marking a stage in scientific advance.

On the Senses, Instincts and Intelligence of Animals, with special reference to Insects. By Sir JOHN LUBBOCK, Bart., M.P., F.R.S., &c. With over one hundred Illustrations. ("International Scientific Series," Vol. lxv.) London: Kegan Paul, Trench & Co., 1889. Pp. xxix., 292.

In the present volume Sir John Lubbock has brought together some of his recent observations on the senses and intelligence of animals; prefixing to the account of his own experiments descriptions of "the mechanism of the senses, and the organs by means of which sensations are transmitted," gathered from numerous memoirs, of which a list is given on pp. xxi.-xxix. The method of exposition of this preliminary matter is to proceed down the scale, beginning from the sense-organs of man. The experiments recorded have been made chiefly on insects. The variety of organs in insects that are apparently organs of sense but to which no function can at present be assigned, suggests to the author the view that among insects might be found senses that man has not or is not known to have (pp. 59, 192). When the senses are supposed to be absolutely disparate, it is of course not easy to bring this suggestion to the test. In cases where there is a possibility of verifying it, the results are sometimes negative and sometimes positive. The author concludes, for example, that "there is no sufficient evidence among insects of anything which can justly be called a 'sense of direction'" (p. 271). On the other hand he believes that his experiments prove conclusively that ants are not only "specially sensitive to the violet rays," but are also "sensitive to the ultra-violet rays, which lie beyond the range of our vision" (pp. 202-3). And "the ants perceive the ultra-violet rays with their eyes, and not, as suggested by Graber, by the

skin generally" (p. 211). Bees also have preferences for special colours; and daphnias "distinguish between rays of different wave-lengths, and prefer those which to our eyes appear green and yellow" (p. 231). The chapters devoted to the sense-endowments of animals are the first ten and the thirteenth ("On the supposed Sense of Direction"). Chapters xi., xii. and xiv. contain many interesting observations on the instincts and intelligence of ants, bees and wasps (including the solitary bees and wasps), and dogs. The experiments with intoxicated ants are now well known. There is an especially interesting passage, at the end of the last chapter, on dogs and "thought-reading".

Psychology. Three Volumes by ANTONIO ROSMINI SERBATI. Vol. iii. London: Kegan Paul, Trench & Co., 1888. Pp. xiv., 464; with Indexes, separately pagged 1-123.

Here is completed the translation begun in 1884 (see MIND x. 139, xi. 286). The volume consists of a book on "Laws of Animality" (pp. 1-288); an Appendix, "A Critico-historical Sketch of the Opinions of Philosophers on the Nature of the Human Soul" (pp. 291-464); and two admirably exhaustive Indexes from the hand of Don Severino Frati of Parma. Vol. ii. having dealt with the "Development of the Human Soul," resulting in an exposition of "the laws that guide the rational principle in its action," Rosmini feels bound, before closing, to return to that "animal part" of human nature which had come into view in the discussions on the "Essence of the Soul" filling vol. i.:—the animal part which, he says, "surrounds human intelligence, like a series of bands wrapping it round and confining it everywhere, and making it wonder at itself and ask why, since it is free in its essence (all intellect resides in the infinite), it is so circumscribed and checked in its flight by a material, brute element". In these words the point of view is at once recognisable; but only from the exposition itself can it be judged with what exceeding care Rosmini brought the best physiological and pathological information he could gather in his time to bear upon the problems of Mind in relation to Life generally. The result has now an interest mainly antiquarian, but not therefore of little value; while a good deal more than antiquarian interest still attaches to the appended "Critico-historical Sketch," drawn from the fulness of the philosopher's rare erudition. Now that the translation, planned with such devotion and so worthily executed and presented, is all there, it can hardly be said that more than a remarkable work of reference has been added to the library of the English psychologist. But it is a work of reference which for variety of contents (if not exactly breadth of range) had scarce its equal there before; and for its use the excellent Indexes supply all the help that could be desired.

Handbook of Moral Philosophy. By HENRY CALDERWOOD, LL.D., Professor of Moral Philosophy, University of Edinburgh. Fourteenth Edition, largely re-written. London: Macmillan & Co., 1888. Pp. x., 376.

Prof. Calderwood's *Handbook*, originally published in 1872, has not only been largely re-written for this edition (many improvements having been made in detail), but in bulk nearly 100 pp. have been added. The "exposition and defence of the Intuitional Theory of Morals," which the book at first offered, has been brought up to date by inclusion of the "criticism of Utilitarianism," that accompanied it, in a more general criticism of the Evolution-theory, under the two forms in which it appears in contemporary thought, namely, "biological and psychological" and

"dialectic" evolution. The psychological basis of utilitarian theories is regarded as forming part of the first of these two doctrines of evolution, and biological evolution in its turn as the preparation for psychological evolution. The criticism of Utilitarianism, therefore, is now placed at the end of the first of the two divisions (i. "Biological and Psychological," pp. 95-130; ii. "Dialectic Evolution," pp. 131-158) substituted for the single division entitled "Development Theory" (pp. 98-152) in the first edition. The general distribution of matter remains for the most part unaltered. A marked change, however, is that the "Sketch of the History of Philosophic Thought as to the Source of our Knowledge of Moral Distinctions," formerly appended to "Psychology of Ethics" early in the book, is now transferred to the end under the title "Sketch of the History of Moral Philosophy". Besides many omissions and alterations in the historical Sketch itself there is to be noted an appended section on "Recent Literature," consisting of expositions of Sidgwick's *Methods of Ethics*, Green's *Introductions to Hume*, Bradley's *Ethical Studies*, Spencer's *Data of Ethics*, and Cyples's *Process of Human Experience*. The History with its additional section extends over pp. 318-367 of the new edition. The circumstance that Utilitarianism, as the author understands it, is now based not only on psychology and the empirical theory of knowledge in its older form but also on the theory of biological and psychological evolution, is perhaps one reason why he gives some pages to physiology, with "illustrations of the structure of nerve and brain," in the enlarged Introduction. The reason assigned for including physiological matter in a treatise on "Moral Philosophy" at all, is that "Physiology and Psychology are so related, that neither science can adequately interpret its facts without reference to the other" (p. 15); the greater part of the book being in fact occupied with "Psychology of Ethics," and only much shorter divisions being allotted to "Metaphysic of Ethics" and "Applied Ethics". Attention may be drawn to the criticism of Neo-Kantianism under the head of "Dialectic Evolution". The enlarged and improved bibliography of the new edition is finally to be noted.

A Treatise of Human Nature by DAVID HUME. Reprinted from the Original Edition in three volumes, and edited, with an Analytical Index, by L. A. SELBY-BIGGE, M.A., Fellow and Lecturer of University College. Oxford: Clarendon Press, 1888. Pp. xxiii., 709.

A handy edition of the *Human Nature* has been much wanted ever since Green brought it so impressively to the notice of students that it could nevermore be left aside for the much less important and deep-going *Inquiry*. The present reprint is in form and fidelity everything that could be desired, but it also has a quite peculiar value in being supplemented with an exemplary Index—running to almost 70 pp.—from the editor's hand. The execution of this guide to the thorough study of Hume's work is so good that it is but doing justice to the editor to show, in words of his own, what his conception of the task was:—"An index . . . enables a reader or student to find some definite passage, or to see whether a certain point is discussed or not in the work. For this purpose a long is evidently better than a short index, an index which quotes than one which consists of the compiler's abbreviations, and its alphabetical arrangement gives it an advantage over a table of contents. . . . But besides this, in the case of a well-known and much-criticised author, an index may very well serve the purpose of a critical introduction. If well devised it should point, not loudly but unmistakably, to any contradictions or inconsequences, and, if the

work be systematic, to any omissions which are of importance." How well this superior conception is carried out appears at once on turning to such capital topics as 'Belief,' 'Body,' 'Cause,' and the like, where, by a most carefully devised system of sections and sub-sections, all the points of Hume's doctrine (with the appropriate references) are brought out, as far as possible, continuously in his own words,—to the satisfaction alike of the beginner who wants a clue to what he may find in the book and of the expert who desires to recollect. Under one head or another nothing important seems to have been overlooked. For instance, if under neither 'Abstract' nor 'General' there is more than general reference given about Hume's doctrine of "abstract or general ideas," the detail is well supplied in a special section under 'Ideas'.

Two Essays by Arthur Schopenhauer. i. *On the Fourfold Root of the Principle of the Sufficient Reason.* ii. *On the Will in Nature.* A literal Translation. ("Bohn's Philosophical Library.") London: G. Bell & Sons, 1889. Pp. xxix., 380.

Schopenhauer's earliest and strictly fundamental work had not before been put into English, though a short abstract of it was given as an appendix to Haldane and Kemp's translation of *Die Welt als Wille, &c.* It was a happy thought of the present anonymous translator to couple with the *Vierfache Wurzel* of 1813, which preceded Schopenhauer's chief work by six years, the supplementary essay of 1836, *Ueber den Willen in der Natur*; the two being in a manner complementary and covering in their fashion the whole ground of the systematic treatise of 1819. Everything of Schopenhauer's that specially called for translation is thus at last within the reach of the English reader. Of the translator's work (so far as we have tested it) it is possible to speak with almost unalloyed praise—which does not often happen with translations. He writes as good English as Schopenhauer, who for a German was a very good writer, might have done if he had been English and had those things to convey. That is to say, he takes great pains, while still aiming at "literal translation," to turn German periods into English sentences; and as to the terms of art involved he has an adequate sense of the difficulty of finding the true English equivalents. The excellence of the result is the less surprising when he states—what again does not often happen with translations—that the work was "originally undertaken in order to acquire a clearer comprehension of the essays rather than with a view to publicity". The translator has, of course, gone upon Frauenstädt's latest editions, incorporating all Schopenhauer's final additions and corrections, so racy and characteristic.

- (1) *Scientific Romances.* No. vii. "The Education of the Imagination." No. viii. "Many Dimensions." By C. H. HINTON, B.A. London: Swan Sonnenschein & Co., 1888. Pp. 1-44. (2) *A New Era of Thought.* By CHARLES HOWARD HINTON, M.A. Oxon. London: Swan Sonnenschein & Co., 1888. Pp. xvi., 241.

(1) These are the first two numbers of a second series of "Scientific Romances" following upon those already noticed in *MIND*. No. vii. is not strictly a romance, but an essay written by the author some years ago, and containing "the germs of the work which is more fully illustrated in his more recent writings". The general disquisition of No. viii. is enlivened by a brief "Eastern story" (pp. 28-31), drawing a new moral from the earth-supporting elephant and the tortoise on which it rests.

(2) The "new era of thought" is "the four-dimensional era" which

"Gauss and Lobatchewsky have inaugurated". The author seeks to make the fourth dimension of space conceivable by a series of constructions with small cubes, described in part ii. (pp. 101-217; with Appendices, pp. 219-241). In part i. he explains what is to be gained both intellectually and in the way of ethical and religious insight from the effort to represent "higher space". The principle of his method is that the clear conception which he maintains is possible of the relation of our world of "three-dimensional space" to the fourth dimension, is to be attained by direct geometrical treatment of problems hitherto treated only analytically.

Mind and Matter. A Sermon preached before the British Medical Association, on Tuesday, August 7, 1888. By JOHN CAIRD, D.D., LL.D., Principal of the University of Glasgow. Published by request of the Association. Glasgow: James Maclehose & Sons, 1888. Pp. 27.

An argument against Materialism on the grounds (1) that "the materialist theory of the relation of matter and mind," requiring the transformation of energy into consciousness, "is in irreconcilable opposition to that very law of the conservation of energy on which it professes to rest," (2) that "Matter, out of which by some inconceivable process thought is to be produced, is that of whose very existence thought is the constitutive, creative source".

A New Theory of Necessary Truths. By LEONARD HALL, M.A., late Scholar of St. John's College, Cambridge. London: Williams & Norgate, 1888. Pp. 31.

"In the following pages," the author writes, "I have put forward a theory of necessary truths which, so far as I know, is new. After showing that the propositions of mathematics and logic are regarded by the mind as *necessarily* true because their negations are *contradictory* to one or other of the *axioms* or *definitions*, I come to the question why *axioms* are regarded by the mind as *necessarily* true. My answer to this question constitutes what I have ventured to call a new theory of necessary truths. I attempt to show that the axioms (except the law of the Excluded Middle) are regarded by the mind as necessarily true, because their negations are contradictory to a proposition which is *certainly* true, being vouched for by the *immediate* testimony of consciousness, a proposition whose validity is *independent of experience*, being, indeed, the condition of the *possibility* of experience, *viz.*, the proposition that *the mind has the capacity to be conscious of unlikeness*. Finally, I consider the validity of the law of the Excluded Middle, an axiom which is employed in every step of reasoning." The law of the Excluded Middle itself "is the expression of the *mutual exclusiveness*" of classes of mental states; "it is therefore derived from that capacity of the mind to be conscious of unlikeness, which involves the power of classifying mental states" (p. 31).

The Philosophy of Religion on the Basis of its History. By Dr. OTTO PFLEIDERER, Professor in the University of Berlin. Vol. iv., translated by ALLAN MENZIES, B.D. London: Williams & Norgate, 1888. Pp. xi., 327.

It has but to be added to the note in last No. (p. 611) on vol. iii. that now, with vol. iv., is completed this effective translation of a work of great importance. The German original was reviewed at length in MIND x. 285.

Three Introductory Lectures on the Science of Thought, delivered at the Royal Institution during March, 1887. By F. MAX MÜLLER. With an Appendix. Chicago: The Open Court Publishing Co., 1888. Pp. vi, 95; App. 1-28.

So much was said in MIND No. 49, pp. 94-105, on Prof. Müller's *Science of Thought* itself that mere mention may suffice of these *Lectures*, delivered at the moment of its appearance, and first completely published in the pages of the enterprising American journal *The Open Court*. They have, in general, exactly the characteristics of the work they were meant to introduce to public notice, but credit should be allowed for the correcter (though brief) information about Berkeley and Hume given at p. 53, as compared with that afforded in *The Science of Thought* (see MIND xiii. 100). The Appendix reproduces a variegated correspondence on "Thought without Words" from *Nature*, called forth by *The Science of Thought*.

Altruism considered economically. By CHARLES W. SMILEY. Salem, Mass., 1888. Pp. 22.

The doctrine enforced in this Address, delivered in August last to the American Association for the Advancement of Science, is that "Self-abnegation is as far from virtue as selfishness. The golden mean lies between where our egoism benefits us but does not sting another, and where our altruism benefits others in its ultimate effects without sapping their or our own welfare." Moral progress is from excessive egoism, through indiscriminate altruism, to justifiable egoism and discriminate altruism. "To Christianity, by far the greatest exponent of indiscriminate altruism, is due the great credit of having taught it and measurably brought the world from selfishness to disinterested benevolence;" but the important thing now is to point out the evil effects of the excesses of modern "benevolence and charity".

Poetry, Comedy and Duty. By C. C. EVERETT, D.D., Bussey Professor of Theology in Harvard University. Boston and New York: Houghton, Mifflin & Co., 1888. Pp. v., 315.

Of this book, part i. (pp. 1-154) treats of Poetry (under the heads of "The Imagination," "The Philosophy of Poetry," "The Poetic Aspect of Nature" and "The Tragic Forces in Life and Literature"); part ii. (pp. 155-215) of Comedy ("The Philosophy of the Comic"); part iii. (pp. 216-305) of Duty ("The Ultimate Facts of Ethics," "The New Ethics"). The Conclusion (pp. 306-315) indicates the relations of "Poetry, Comedy and Duty" to one another. All three parts have interest and freshness of style. The author's general conclusions are that "in the comic is found a special characteristic of the spirit, and its act of purest or most independent self-assertion," in which it "holds itself wholly apart from and above the object of its contemplation"; that "in the enjoyment of beauty the spirit is no longer in solitude" but in sympathy with the life about it, though its relation to this is still "of the nature of play"; that, finally, "in duty it has found an object worthy of its highest devotion, and has surrendered itself to this, finding in this surrender the full and free realisation of itself".

Psychologie de l'Attention. Par TH. RIBOT, Professeur au Collège de France, &c. Paris: F. Alcan, 1889. Pp. 180.

Another (the fourth) of the short psychological monographs which Prof. Ribot has, in recent years, taken to writing. Its three main parts have already appeared in the *Revue philosophique*. Critical Notice will follow.

Le Phénomène. Esquisse de Philosophie générale. Par J.-J. GOURD, Professeur à l'Université de Genève. Paris: F. Alcan, 1888. Pp. 447.

Among the salient characters of his "Sketch of General Philosophy" the author indicates "in the first place fidelity to the strictly phenomenalist point of view". His phenomenism requires the condemnation of "ultra-phenomenalist substantialism," of pantheism, and of "exclusive materialism and spiritualism". "For pantheism it would be necessary to substitute a frankly pluralist doctrine, in which individualities would preserve, in the bosom of the universal harmony, their distinction and independence." In opposition to materialism and spiritualism he concludes for "a dualism of moments equally necessary" but "unequally interesting," a dualism "de nuance spiritualiste".

La Vie et L'Ame. Par EMILE FERRIERE. Paris: F. Alcan, 1888. Pp. 580.

A study of "Life" (part i., pp. 23-170), "The Soul" (part ii., pp. 171-469) and "Life and the Soul in their relations with Matter and Energy" (part iii., pp. 471-563), by an author who is already known as a populariser of science. He aims at establishing, even to the satisfaction of "the reader whose hair would stand on end at the mere name of Metaphysics" (p. 8), "an experimental Spinozism," or doctrine of "the unity of substance" and of its double manifestation as "matter-energy". For this doctrine "the soul is a function of the brain". "Matter-energy" has "two general modes of evolution," the "inorganic" and the "organic". "Life is a principle, as to its origin," and therefore implies a First Cause. To determine whether the First Cause is included in the "world," i.e., the sum of the inorganic and organic modes, or is distinct from the world, will be the object of another volume.

L'Histoire de la Philosophie, ce qu'elle a été, ce qu'elle peut être. Par M. F. PICAVET, Agrégé de Philosophie. Paris: F. Alcan, 1888. Pp. 48.

A discussion of the relations of history of philosophy to other studies. The preliminary studies in textual criticism, biography, &c., necessary for the full understanding of a philosophical system having been set forth, the mutual bearings of the history of science, art, literature and institutions, and of the history of philosophy in general, are illustrated. The author brings out very forcibly the relation between the history of the special sciences and of philosophy.

Essai sur la Liberté Morale. Par E. JOYAU, Chargé de cours à la Faculté des lettres d'Aix, Ancien élève de l'Ecole normale. Paris: F. Alcan, 1888. Pp. x., 246.

The author of an essay on the Creative Imagination, noticed in *MIND* v. 295, here deals with the question of Free-will. After examining and rejecting "Fatalism," "Determinism" and the "Liberty of Indifference," he sets forth as his positive doctrine that "the essential form of liberty is to will a thing because reason commands it; self-determination by oneself is self-determination in conformity with reason". Free-will as the power of determining oneself conformably to reason does not include the power of acting wrongly, that is, in opposition to reason. "Such is the nature of liberty that it is impossible to make a bad use of it; but it often happens to us not to make use of it at all." "The cause of the good that we do is in us, the cause of evil is outside of us; if we

accomplish it, it is that we are carried away by an external force, we submit to a law that we have not made, we are heteronomous." The power of willing in accordance with reason depends on the power of directing the attention to that which reason affirms. The will is said to be free and the person responsible because attention is in our power. Free-will is an acquirement, rather than something that all men possess merely by the fact of their being men. There are many men who never attain to the exercise of their free-will, but remain always heteronomous. "No one sins willingly." This position the author revives in its unqualified form and defends against the objections of Aristotle and the moderns. For anyone to do evil, his judgment must first be so perverted by passion that he regards it as a good. He is responsible because it was in his power to suspend judgment and to learn what reason commands by directing the attention. "If we know what is good, if we judge that better which is really so, we shall never fail of force to accomplish it."

Prof. GIOVANNI CESCA. *La Metafisica e la Teorica della Conoscenza del Leibniz*. Padova: Drucker e Senigaglia, 1888. Pp. 44.

An exposition and criticism of Leibniz's *Metaphysics* (pp. 3-30) and *Theory of Knowledge* (pp. 31-44). Both are included in the same condemnation as involving recourse to the "miracle" of "pre-established harmony". Leibniz had the merits of opposing the Cartesian doctrine of the passivity of matter and of developing the law of the continuity of all beings; but these merits were neutralised by his "theologico-metempirical tendency," which prevented him from seeing that "all our knowledge is relative to our consciousness and limited to our experience"—a result which could only be attained by Kant, "liberating the Leibnizian doctrine on the origin of cognition from the metaphysical preconceptions to which it was bound".

La Morale e il Diritto. Per GIACINTO FONTANA. Milano: Fratelli Dumolard, 1888. Pp. 447.

A critico-historical study of the relations of law and morals. Morality and law the author regards as two parts of a general science of Ethics. As such they are to be cultivated in "distinction but not separation". Against modern "positivistic" writers—among whom are included M. Fouillée, as well as the new Italian criminological school—the author contends for free-will as essential to the idea of justice.

Zur Lehre von der Definition. Von Dr. HEINRICH RICKERT. Freiburg i. B.: J. C. B. Mohr (Paul Siebeck), 1888. Pp. 66.

Before the signification of "a word designating a concept" can be given, a "purely internal thought-process" must have preceded. It is quite arbitrary to call the expression in language alone "definition". "Neither does the word *ὁρισμός* in Aristotle signify word-explanation, nor is the word 'definition' used in this sense to-day. It is employed rather for that internal thought-process and the expression in speech at the same time" (p. 20). The end of definition is so to determine concepts that out of them a complete system of necessary judgments may be formed of which the subjects and predicates are perfectly unambiguous concepts (p. 22).

Einleitung in die Psychologie nach Kritischer Methode. Von PAUL NATORP. Freiburg i. B.: J. C. B. Mohr (Paul Siebeck), 1888. Pp. 129.

This Introduction to Psychology on Kantian principles is divided into two parts:—i. "The Object of Psychology" (pp. 1-42), ii. "The

Method of Psychology" (pp. 48-129). The object of psychology the author finds to be the combination of "contents" in the actual consciousness, so far as this combination has reference simply to the subject or Ego. According to his view, there are not two "orders" of phenomena, constituting "the object- and subject-worlds," but each phenomenon has an objective and a subjective side or aspect; the difference being that in one case the reference to the unity of the Ego, in the other case the reference to the unity of the object (which is the unity of law), is abstracted from. This "correlativity of consciousness and object" has repeatedly found expression in the history of philosophy, but its negative consequences for the possibility of an independent theory of the phenomena of consciousness have only been decisively proclaimed by Kant (p. 51). Two things appear to the author to result at once from the principle of "correlativity": (1) all truly scientific explanation of psychical phenomena must be from the objective side, that is, it must be physiological; (2) the unity of consciousness itself, since it is a condition precedent to all knowledge, admits of no explanation at all. Nevertheless he contends, against Kant, for the possibility of an independent psychological theory having for its problem to "reconstitute" the psychical phenomenon out of the objects of science and ordinary consciousness, just as science "makes objects out of given phenomena". Psychology, in this sense, is the subjective correlate of Theory of Knowledge—or "Criticism of Knowledge," as he would prefer to say. Criticism of Knowledge is purely "objective" and absolutely independent of psychology. The unity of law that is its presupposition is really a "unity of determination of content," of which "the unity of consciousness" is only the subjective expression. The "fundamental and general part of psychology" corresponding to "pure, objective criticism of knowledge" would be a "pure *a priori*" psychology, and would form part of philosophy. The author proposes a distribution of its subject-matter under the heads of (1) sensation, (2) representation, (3) the concept, (4) the idea of end. He seeks to attach his own views of the nature of knowledge in general and of psychological explanation in particular chiefly to the doctrines of "the great Rationalists"—Plato, Descartes, Leibniz and (of course) Kant. A reference, at p. 92, to English psychologists, by whose views in this instance he seeks to confirm his position, is not historically quite accurate. "For the so-called laws of Association of Ideas," he says, "their founders presupposed physiological causes, and indeed as self-evident, and only in regard to such causes did they venture to designate them laws, but had no intention of introducing a purely psychical causality." This was not the position of Hume at least; but the author would find it anticipated, along with his doctrine of the two "aspects," by Mr. Shadworth Hodgson among living English philosophers.

Untersuchungen zur Philosophie der Griechen. Von Dr. HERMANN SIEBECK, Professor der Philosophie an der Universität Giessen. Zweite, neu bearbeitete und vermehrte Auflage. Freiburg i. B.: J. C. B. Mohr (Paul Siebeck), 1888. Pp. viii., 279.

The first edition of these studies on Greek philosophy appeared in 1873. For this second edition they have been revised in the light of more recent investigations and otherwise modified. To the four studies of the original edition—the subjects of which are (1) The relation between Socrates and the Sophists, (2) Plato's doctrine of Matter, (3) Chronology of the Platonic dialogues, (4) The transformation of the Peripatetic Nature-philosophy into that of the Stoics,—two others that

have been since published are added, both of which are contributions to Aristotelian criticism ("Zu Aristoteles," pp. 152-162; "Zur Katharsisfrage," pp. 163-180). Altogether new matter is added in two supplements to (3), "On the Platonic question" (pp. 253-274). In the last of these there are some remarks on Dr. E. Pfeleiderer's recent work (see *MIND* xiii. 464). Prof. Siebeck here contends that the philological method, though it does not lead very far, yet, as far as it goes, yields more positive results than Dr. Pfeleiderer is willing to admit. With some of Dr. Pfeleiderer's positions he himself agrees, but would seek a basis for them in philological rather than in philosophical considerations. His excursion into purely textual criticism, however, is only an indication of the thoroughness of his method of study, and not of any disposition to neglect the philosophical for the philological point of view. The idea by which the book as a whole is dominated is—as might be expected from the *Historian of Psychology*—that of the continuity of philosophical thought. The aim of the first study, for example, is to show how, notwithstanding the constructive aims of Socrates and the absence of constructive aims among the Sophists, there were in every department of thought and life fundamental agreements between the Socratic and the Sophistic positions, due to the common opposition of the Sophists and Socrates to the early dogmatic philosophies. The two critical papers on Aristotle, again, have for their aim to show the dependence of Aristotle on Plato; and immediately after these comes the long and important investigation of the relation between the Aristotelian and the Stoic philosophies of nature, which, the author maintains, is one of specially close dependence. The problem he here sets himself to solve is that of showing how the theoretical philosophy of the Stoics was a development of Peripateticism in the direction of monism, and yet at the same time a return to Heraclitus. The solution given is led up to by a detailed exhibition of the dualistic elements in Aristotle's theory both of the macrocosm and the microcosm, of the suggestions for getting rid of dualism that were contained in his own works, and of the development of these suggestions by the Peripatetics. This development had only to be carried a little further by the Stoics for a system of complete monism to take the place of the partially dualistic system of Aristotle. Now the monistic doctrine into which Aristotelianism tended to pass bore a strong resemblance to Heracliteanism. It was for this reason that the Stoics attached themselves directly to Heraclitus—by whom, as the author allows, the development of their philosophy of nature into the form it finally assumed was also directly influenced, though its immediate historical antecedent, as it is the object of his investigation to show, was Aristotelianism. In his discussion of Plato's theory of 'matter,' Prof. Siebeck contends that for Plato the opposite of the idea was not a material substance like that of Aristotle and later thinkers, but "the indeterminate substratum of the geometrical," "the abstract form of space". Thus the unreconciled dualism of Plato's philosophy is accompanied by a striving after monism. Though unable to maintain for his ideal world an exclusive reality such as the Eleatics maintained for 'being,' Plato made his concessions to the Ionian physicists as small as possible by reducing to a mere abstract form, an empty capacity of assuming geometrical determination, the reality he was obliged to allow to that which opposed the unity of the idea.

Philosophische Güterlehre. Untersuchungen über die Möglichkeit der Glückseligkeit und die wahre Triebfeder des sittlichen Handelns.
Von Dr. A. Döring, Gymnasial-direktor a. D. und Docent an der

Berliner Universität. Berlin: R. Gaertner (H. Heyfelder), 1888. Pp. xi., 488.

An attempt at a theory of the good and of happiness as a basis for ethics. According to the author, the theory of goods in general is not only a philosophical problem, but the whole problem of philosophy. The highest good having been determined, an ethics, or theory of the course of life by which this is to be attained, may then be constructed. Later antiquity (the Epicureans and Stoics) had arrived at the true conception of philosophy as theory of goods, and although this has not yet become again the prevailing conception, it is now coming forward in consequence of the rise of pessimism. Philosophy has to take the pessimistic negation as its starting-point and proceed thence to the development of a positive doctrine of happiness. The book falls into two parts—i. "Elementary Doctrine of Goods" (pp. 57-244); ii. "Collective Doctrine of Goods, or Doctrine of Happiness" (pp. 245-419), together with an Introduction (pp. 1-56) and an Appendix (pp. 420-38).

Die technischen Fortschritte nach ihrer ästhetischen und kulturellen Bedeutung. Von JOSEPH POPPER. Leipzig: Carl Reissner, 1888. Pp. 70.

An interesting, if sometimes rather paradoxical, essay on the æsthetic and social effects of the progress of the mechanical arts. The author first points out that there is a real æsthetic pleasure, not only from following the progress of discovery in pure science, but also from contemplating the adaptation of means to ends in new applications of science to industry. This, he goes on to contend, is an "equivalent" for the pleasure in the fine arts that the modern world has perhaps to some extent lost. If the new æsthetic pleasure in pure and applied science is not positively moralising, at any rate it has none of the corrupting influence often exercised by fine art. At the same time its influence on civilisation is not entirely advantageous, as the author goes on to admit. Its effect on the present age is that of a "moth-ideal"; and the European nations, regarding themselves as superior to the others simply because they are superior in science and industry, try to push those that do not willingly accept their ideal into the flame—a proceeding for which there is no parallel in natural history, and which cannot be justified, since both individuals and nations know best what is their own greatest æsthetic enjoyment. The Mohammedan, for example, who regards the Arabian Nights as true, or at least possible, perhaps derives more æsthetic pleasure from his imagination than the European does from the greatest wonders of applied science. In the end, however, technical progress will be so used as to result in nothing but good.

Das nachgelassene Werk IMMANUEL KANT'S: Vom Uebergange von den metaphysischen Anfangsgründen der Naturwissenschaft zur Physik, mit Belegen populär-wissenschaftlich dargestellt von ALBRECHT KRAUSE. Frankfurt a. M. und Lahr: Moritz Schauenburg, 1888. Pp. xvii., 213.

The manuscript of Kant's posthumous work projected as the transition from the *Metaphys. Anfangsgründe d. Naturwissenschaft* to physics, which has passed through various hands, and is now in the possession of the present editor, Dr. A. Krause, is not even yet published in full. Very copious extracts, however, are supplied, and the editor gives, with continuous reference to these, a "popular exposition" of the whole work. The pagination is in duplicate—the extracts from Kant's MS. being given on one side, in German type, and the editor's exposition, in

Roman type, on the opposite side. In the margin is an analysis, also printed separately as a table of contents on pp. iii.-xiii. The exposition is a free rendering of Kant's thought; the Kantian positions being applied, for instance, to the interpretation of discoveries in physics made since Kant's day, and to the criticism of the "Nature-Philosophy" of Schelling, Hegel, Oken, &c.

Bibliographie des Modernen Hypnotismus. Von MAX DESOIR. Berlin: C. Duncker's Verlag (C. Heymons), 1888. Pp. 94.

This Bibliography of Modern Hypnotism—which should have been noticed earlier—records especially the work done in the most recent period of hypnotic studies, since the time when the subject was brought into full recognition by French investigators. It is very full and careful. Merely popular essays are not mentioned, but articles in scientific journals, even when they have been republished in another form, are cited also according to their original date and mode of publication, so as to give the student the means of tracing accurately the progress of the subject. The list of periodicals referred to extends from p. 13 to p. 20; the bibliography (classified under nine heads) from p. 21 to p. 86. A page of statistics (p. 87) follows, where the number of papers, &c., is given according to (1) subject, (2) language, (3) date of appearance (1880-8). Lastly there is an Index of names (pp. 88-94). In his Preface the author writes of the progress of hypnotic research in a tone of enthusiasm. The bibliography is intended as the preliminary to a "Critical History of Hypnotism" which he has it in view to write.

Kant und Schopenhauer. Zwei Aufsätze von GEORG VON GIŻYCKI. Leipzig: W. Friedrich, 1888. Pp. 112.

Of these appreciative and interestingly written essays on "Kant's Practical Philosophy" (pp. 1-44), and "Arthur Schopenhauer" (pp. 45-112), the first is expository and critical, the second chiefly biographical. Printed already as a series of articles, they appear in their present form in celebration of two centenaries,—the *Kritik der praktischen Vernunft* having been published in the year of Schopenhauer's birth.

Moral-Philosophie, gemeinverständlich dargestellt von GEORG VON GIŻYCKI. Leipzig: W. Friedrich, [1888]. Pp. viii., 546.

The author substitutes this greatly extended and practically new treatise for his *Grundzüge der Moral*, published in 1883 (see MIND viii. 459). What is most distinctly common to the two is the aim to keep the treatment, however seriously conceived in a philosophical sense, upon a level of popular understanding. As before, he pays special regard to authorities of English speech. Critical Notice will follow.

Psychologische Studien zur Sprachgeschichte. Von Dr. KURT BRUCHMANN in Berlin. Leipzig: W. Friedrich, 1888. Pp. x., 354.

Mention should have been made earlier of this interesting contribution to the psychology of literature. The studies are two, of about equal length; and in the first of them the author conducts an historical inquiry into thought generally, as manifested in Tradition and Imitation, in Mythology and Religion. In the second, more expressly psychological, study he shows the great part played by Analogy in the building-up of Thought, and deals among other topics with the difference between

Poetry and Mythology, the "contradiction" between Speech and Thought, and especially the development of Speech according to the principle of least expenditure of Energy (here following Prof. Avenarius). In conclusion, he seeks to connect his psychological inquiry with the psychological work of Fechner and Prof. Wundt; while he is led on from his view of the historical development of speech among men to touch upon the problem of History in general.

Das Gedächtnis. Studie zu einer Pädagogik auf dem Standpunkt der heutigen Physiologie und Psychologie. Von Dr. FRANZ FAUTH, Professor an dem König Wilhelms-Gymnasium zu Höxter. Gütersloh: C. Bertelsmann, 1888. Pp. xv., 352.

The author's pedagogical study on memory is contained in bk. ix. (pp. 292-352). His first eight books (i. "Historico-critical Orientation on Unconscious Memory," ii. "Historico-critical Orientation on Conscious Memory," iii. "Unconscious Memory," iv. "Consciousness and its Conditions," v. "The Kinds of Consciousness," vi. "Memory as Conscious Mental Life," vii. "Morbid Consciousness and Morbid Memory," viii. "Language and Memory") contain the psychological foundation, which has to a certain extent an independent value. In the pedagogical part, while he lays stress on the better training of the senses (p. 301), his main contention is that language, and more especially the mother tongue, ought to be central in education (p. 337). He discusses the question whether languages should be taught "inductively" or "deductively," and concludes against the advocates of what is sometimes called the "natural" method. It is only life, he remarks (p. 333), with the greater measure of time it has to dispose of, that can permit itself the luxury of "pure induction". By employment of the mixed inductive and deductive method, the educator renders the learning of a language more rapid.

Lehrbuch der empirischen Psychologie für Gymnasien und höhere Lehranstalten sowie zur Selbstbelehrung. Von Prof. Dr. WILHELM JERUSALEM. Wien: A. Pichler's Witwe & Sohn, 1888. Pp. 160.

The author has already (see MIND xii. 151) put forth some ideas as to the teaching of psychology in Gymnasias; the principal reform suggested by him being the supplementing of the traditional Herbartian treatment by newer methods and results, such as those of Wundt. He has now written a small text-book in which he has been able to work out his ideas at greater length. The divisions of the book are—"Introduction" (pp. 1-13); Part i. "The Receptive Activity of Consciousness" (pp. 13-119), Section i. "Of Sensation," ii. "Of Perception," iii. "Of Representation," iv. "Language and Thought," v. "Feeling"; Part ii. "The Spontaneous Activity of Consciousness," Section vi. "The Movements and the Will" (pp. 119-143); Appendix, "Interruptions and Disturbances of Psychological Life" (pp. 144-157). While taking account of all the "aids to psychology"—physiology, linguistic science, &c.—the author maintains the right position as regards method, pointing out that the psychologist has to interpret all results by introspection.

Optische Haresien, erste Folge und das Gesetz der Polarität. Von ROBERT SCHELLWIEN. Halle-Saale: C. E. M. Pfeffer (R. Stricker), 1888. Pp. vii., 108.

This is an investigation of electrical and optical polarity according to the principles laid down in the author's former volume noticed in MIND xi. 592. His general contention is that the "atomistic-mechanical" view of

nature is insufficient not only in philosophy but also in special scientific investigations, which require for their more successful prosecution the replacement of the theory of uniform atoms acting on one another mechanically by a theory of the absolute unity of being and of the identity of nature with spirit.

Das Geheimniss der Hegelschen Dialektik, beleuchtet vom concreet-sinnlichen Standpunkte. Von EUGEN HEINRICH SCHMITT. Halle a. S.: C. E. M. Pfeffer (R. Stricker), 1888. Pp. xiv., 144.

This Essay, sent in for the prize offered by the Philosophical Society of Berlin for the best "Historico-critical Exposition of Hegel's Dialectic Method" (see MIND x. 158), has been "named with special distinction" and is now printed among the publications of the Society. The author regards Hegel's philosophy as the "dialectical stage of transition from the abstract world-theory of the past to the concrete world-theory of the future". Hegel's disciples misapprehended his doctrine when they regarded it as a system of absolute truth completed once for all by Hegel. The appearance that it has of claiming to be this is due to Hegel himself having been still to a certain extent at the "abstract" point of view from which his philosophy was to set the European intellect free. In reality the Hegelian philosophy is not a completed dogmatic system, but a kind of "abstract anticipation" of the philosophy of the future.

Die Methode der Eintheilung bei Platon. In einer Reihe von Einzeluntersuchungen dargestellt von Dr. FRANZ LUKAS, k.k. Gymnasial-Professor in Krummau. Halle-Saale: C. E. M. Pfeffer (R. Stricker), 1888. Pp. xvi., 308.

A series of special researches on Plato's "method of division". In Part i. (pp. 1-90) is considered the method of division in the dialogues of which the genuineness is sufficiently established by the testimony of Aristotle (*Republic*, *Timæus*, *Leges*); in Part ii. (pp. 91-143), the method of division in the dialogues universally recognised as genuine though not proved to be so by Aristotle's testimony (*Phædrus*, *Gorgias*, *Theætetus*); in Part iii. (pp. 144-308), the method of division in the dialogues of which the genuineness is neither sufficiently established by the testimony of Aristotle nor universally recognised. What strikes the author on a general review is the great variety of Plato's modes of division and subdivision. They are not less various, he thinks, than those employed to-day, and have still a scientific interest.

Die Entwicklung des Causalproblems von Cartesius bis Kant. Studien zur Orientirung über die Aufgaben der Metaphysik und Erkenntnislehre. Von Dr. EDMUND KOENIG. Leipzig: Otto Wigand, 1888. Pp. vi., 340.

A history of the transformations undergone by the conception of Cause from Descartes to Kant. The doctrines considered are, in order, those of Descartes, Malebranche, Spinoza, Leibniz, Wolff, Crusius, Bacon, Hobbes, Locke, Berkeley, Hume, the Scottish school and Kant. The author regards Kant's Transcendental Idealism as the conclusion that satisfactorily sums up the whole development.

Geschichte der alten Philosophie von Dr. W. WINDELBAND, ordentl. Professor der Philosophie an der Universität Strassburg. Separat-Abdruck aus dem "Handbuch der klassischen Altertumswissenschaft". Nördlingen: C. H. Beck, 1888. Pp. vi., 220.

The author in his short prefatory note remarks that when, "more than five years since," it was proposed to him to contribute a general view of ancient philosophy to the *Handbuch der klassischen Altertums-wissenschaft*, there was nothing of the kind in existence, and that if he had known that Zeller was about to write a Compendium, he would not have begun the present work. It seems as if some mention ought to have been made here of Part i. of Ueberweg's *Grundriss*, to which, though he makes great use of it, and frequently cites it in his Compendium itself, Prof. Windelband does not refer in his preface. The divisions of the book are—Prolegomena (pp. 1-9); A. Greek Philosophy: Introduction (Pre-conditions of Philosophy in Greek life), 1. The Milesian Nature-philosophy, 2. The Metaphysical Ground-contrast: Heraclitus and the Eleatics, 3. Attempts at Mediation (Empedocles, Anaxagoras, Leucippus, Pythagoreanism), 4. The Greek Enlightenment: the Sophists and Socrates (with the Megarics, Cynics and Cyrenaics), 5. Materialism and Idealism: Democritus and Plato, 6. Aristotle (preceded by the Old Academy); B. Hellenistico-Roman Philosophy: 1. The Battles of the Schools (Peripatetics, Stoics, Epicureans), 2. Scepticism and Syncretism, 3. Patristic Philosophy (pp. 201-10, the Apologists, the Gnostics and their Opponents, the Alexandrian Catechetical School), 4. Neo-Platonism. For conclusion there are two short paragraphs on Augustine. The author's treatment as a whole lacks distinctiveness.

Hamlet ein Genie. Zwei Vorträge in Berlin und Hamburg gehalten von HERMANN TURCK. Reudnitz-Leipzig: Max Hoffmann, 1888. Pp. 52.

This is an interesting piece of criticism, at the ground of which is a view of the nature of genius notable for its psychological precision. According to the author, the understanding of Hamlet's character is not to be sought, as it has so often been, in weakness or moral scrupulosity where action is necessary (which cannot in the least be attributed to Hamlet), but in the effect of a crisis on a "genial" personality. What is characteristic of genius is on the side of intellect freedom in face of its own Ego, that is, the aptitude for taking the impersonal or disinterested view of itself as of all other things, and on the side of will a certain "elasticity" by which the personality, while easily impressible for the moment, yet always reacts so as to remain constant to its own internal nature. Thus the action of the genial character, when deliberate, is the realisation of an internal thought, not simply the carrying out of a purpose willed from external motives, egoistic or other. The idea, which in this general statement may seem over abstract, is skilfully applied to the matter in hand.

Schopenhauer als Philosoph der Tragödie. Eine kritische Studie von Dr. EMIL REICH. Wien: C. Konegen, 1888. Pp. 139.

The most distinctive part of this criticism of Schopenhauer's theory of tragedy is the defence against Schopenhauer of the conception of "poetical justice," which, according to the author, rules in all great tragedies. The ideas that are fundamental in tragedy are those of guilt and expiation. The guilt must be due to an act of free-will. "Tragedy stands and falls with the freedom of the will." The expiation must be that which is required by "the moral world-order". Hence "fate-tragedies" are mere "caricatures of true tragedies". In contrast to Sophocles, "the father of the fate-tragedy," Shakespeare may be called "the philosopher of the moral world-order," for he never lets the guiltless perish, as Schopenhauer maintains that he does, but always metes out punishment in exact accordance with the precepts of poetical

justice. This was not always intelligible to former generations, but the present generation of Germans at last understand the ideas of Shakespeare's contemporaries, and see how to them poetical justice seemed always to be observed (pp. 109, 111).

Eugen Dühring. Eine Studie zu seiner Würdigung von Dr. H. DRUSKOWITZ. Heidelberg: G. Weiss, 1889. Pp. 119.

An admiring estimate of Dr. E. Dühring, not as a theoretical philosopher, but as "a moral force," by an author some of whose writings have already been noticed in *MIND* (see Vols. xi. 589, xii. 150, xiii. 306).

NORBERT GRABOWSKY'S Volksbuch über die Kunst glücklich zu werden. Würzburg: L. Kressner, 1888. Pp. 80.

The author finds in the industrial civilisation of America the starting-point for a pessimistic theory of life. His theory—developed in the form of conversations between imaginary personages—is based, however, on general metaphysical grounds. His position is that there is a certain sum of happiness in the world that can neither be increased nor diminished. If there is increase of happiness in one direction, there must be diminution in another. While accepting the pessimistic element in Buddhism and its practical outcome, he contends for the belief in a personal God and personal immortality.

Autoritäten. Von Dr. PAUL VON GIŻYCKI. Sonderabdruck aus der Wochenschrift "Die Nation". Berlin: F. & P. Lehmann. Pp. 58.

By an "authority," the writer understands a personality having influence over others indefinitely in excess of its physical and intellectual force (p. 8). The causes of this influence he finds to be (1) fear, (2) incapacity of the many for thinking. In modern times—the whole of Europe and a sufficiently long period being taken into view—independence of authorities, both in theology and politics, is visibly increasing.

RECEIVED also:—

G. Birkbeck Hill, *Letters of David Hume to W. Strahan*, Oxford, Clarendon Press, pp. xlvii., 386.

T. H. Warren, *Republic of Plato*, i.-v., Lond., Macmillan, pp. lxxv., 324.

J. Wright, *Phaedrus, Lysis, Protagoras of Plato*, trans., Macmillan, pp. 272.

T. W. Hall, *A Correlative Theory of Chemical Action and Affinity*, Lond., Remington, pp. 360.

Ap Richard, *Marriage and Divorce*, Lond., Trübner, pp. xii., 173.

D. J. Hill, *The Social Influence of Christianity*, Boston, Silver & Burdett, pp. 231.

F. Cellarier, *Etudes sur la Raison*, Paris, F. Alcan, pp. 279.

J. Crépieux-Jamin, *L'Ecriture et le Caractère*, F. Alcan, pp. 312.

L. de la Rive, *Sur la Composition des Sensations, etc.*, Genève, Georg, pp. 99.

P. Ceretti, *Saggio circa la Ragione etc.*, i. (Versione dal Latino), Torino, Unione Tip.-Ed., pp. xv., 930.

J. Vanni, *Un Programma Critico di Sociologia*, Perugia, Santucci, pp. 142.

F. Paulsen, *System der Ethik*, Berlin, Hertz, pp. 868.

NOTICE will follow.

VIII.—NOTES AND FOREIGN PERIODICALS.

THE ARISTOTELIAN SOCIETY FOR THE SYSTEMATIC STUDY OF PHILOSOPHY (22 Albemarle Street, W.).—The Tenth Session opened Monday, Nov. 5, when the Presidential Address was delivered by Mr. Shadworth H. Hodgson on "Common-sense Philosophies". The following meetings have been held:—Nov. 19, a paper by Mr. S. Alexander, V.P., on "The Growth of Moral Ideals," which was followed by a discussion; and Dec. 8, a 'Symposium' on the question "Can the Nature of a thing be learnt from its History alone?" the papers being contributed by the President, Mr. F. C. Conybeare and Mr. G. F. Stout. [Instead of a mere *Abstract of Proceedings* as issued in 1887, the Aristotelian Society has now published (with Messrs. Williams & Norgate) a first Number of regular *Proceedings*. The Number consists of two parts: i. a collection of papers (pp. 5-73) as actually read before the Society in the Session 1887-8; ii. a record (pp. 74-90) of the different meetings of the Society in the same Session, with abstracts of most of the other papers read (but not printed at length in the first part); followed by an Appendix (pp. 92-7), giving all other information about the Society.]

The Wykeham Chair of Logic at Oxford is now vacated by Prof. T. Fowler, who has held it since 1872.

The Neo-Scholastic movement is now represented by a philosophical periodical (bearing the name *Philosophisches Jahrbuch*, and edited for the "Görres-Gesellschaft" by Professors C. Gutberlet and J. Pohle), for notice of the first three numbers of which see below. It is to be published quarterly (in March, June, September and December), and each (annual) volume is to contain not less than 480 pp. In accordance with the recommendations of the Papal Encyclical "*Æterni Patris*," the *Philosophisches Jahrbuch* will treat both the older and newer problems of philosophy, in view of present needs, in accordance with the general principles of Christian Scholasticism, and more especially (though not exclusively) of Thomas Aquinas. Without being directly apologetic, "it will, by refutation of philosophical errors, obviate also the objections against the Christian faith that have sprung from these".

[An effort will be made to give henceforth something more than mere titles for more important articles in the Foreign Periodicals—according as a new volume of each is reached: in the case of old volumes still running, titles only continue to be given below.]

AMERICAN JOURNAL OF PSYCHOLOGY.—Vol. i., No. 4. G. T. W. Patrick—A further Study of Heraclitus. Psychological Literature (The Nervous System; Experimental; Hypnotism; Abnormal; Anthropological; Miscellaneous). Notes.

REVUE PHILOSOPHIQUE.—An. xiii., No. 10. P. Janet—Introduction à la science philosophique. iii. La science et la croyance en philosophie. B. Bourdon—L'évolution phonétique du langage. T. Ferneul—Nature et fin de la société. Rev. Gén. (G. Tarde—La crise de la morale et la crise du droit pénal). Analyses, &c. (C. Mercier, *The Nervous System*, &c.). Correspondance (J. Dickstein—Sur l'introduction de la philosophie de Kant en France). No. 11. A. Fouillée—Philosophes français contemporains: M. Guyau (ii.). E. Durkheim—Suicide et natalité. G. Sorel—

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ZEITSCHRIFT FÜR PHILOSOPHIE, &c.—Bd. xciv., Heft 1. R. Seydel—Kants synthetische Urtheile a priori, insbesondere in der Mathematik. [Kant's neglect of the distinction between the "content" and the "function" of knowledge, i.e., of the distinction between its character as knowledge and its psychological relation to the knower, has caused him to assume real synthetical judgments where only analytical judgments need be assumed.] R. Manno—Wesen und Bedeutung der Synthesis in Kants Philosophie. [A prize essay, partly expository and partly critical, "crowned" by the Philosophical Faculty of Bonn.] J.

Wahn—Kritik der Lehre Lotzes von der menschlichen Wahlfreiheit. [Lotze's doctrine of free-will makes a gap in his philosophical system; the assumption of indeterminism being inconsistent with its two fundamental thoughts—"the pantheistic explanation of reciprocal action and the teleology". Nor does Lotze's indeterminism "solve its own problem"; for in reality it is only the necessary connexion of psychological cause and effect that can justify the attentive cultivation of the sense of duty.] Recensionen, &c.

PHILOSOPHISCHE MONATSHEFTE.—Bd. xxv., Heft 1, 2. G. Heymans—Erkenntnistheorie und Psychologie. [Empirical psychology, though not itself theory of knowledge, is still not without bearing on questions of validity.] Th. Lipps—Psychologie der Komik (iii.). [On "the naive and humour".] F. Tönnies—Herb. Spencer's sociologisches Werk. [An appreciative but independent examination of vol. i. of the *Principles of Sociology*, on completion (1887) of B. Vetter's German translation of it, made upon the enlarged 3rd ed. Perhaps the most noteworthy point is what is said as to the nearer approach in Mr. Spencer's later writings than in his earlier ones to Rousseau's conception of primitive man. Occupation with the facts, the author says, has modified for the better Spencer's *a priori* thought that egoism is more predominant as we get nearer the origin of society.] Litteraturbericht (A. Alexander, *Some Problems of Philosophy*, &c.). Bibliographie, &c.

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VIERTELJAHRSSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE.—Bd. xii., Heft 4. J. v. Kries—Ueber den Begriff der objectiven Möglichkeit u. einige Anwendungen desselben (Schluss). G. Heymans—Zur Raumfrage (ii.). K. Lasswitz—Galilei's Theorie der Materie (i.). A. Meinong—Ueber Begriff u. Eigenschaften der Empfindung (ii.). Anzeige. Selbstanzeige, &c.

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ARCHIV FÜR GESCHICHTE DER PHILOSOPHIE.—Bd. ii., Heft 1.—E. Zeller—'Ἡγεμονία und δεσποτεία bei Xenophanes. [That the opinion of Xenophanes, according to the report of Theophrastus, as given in a passage from the pseudo-Plutarchian *Στροματεῖς* cited by Eusebius (*Pr. Ev.*, i. 8, 4), must be held to deny all lordship of one god over others, and not merely the "despotic" (in the sense of "harsh") government of the other gods by Zeus. Consequently the opinion cited implicitly denies polytheism.] J. Freudenthal—Zu Aristoteles *De Memoria* 2. 452a. 17f. E. Arleth—Βίος τέλειος in der aristotelischen Ethik. [That Aristotle (*Eth. Nic.*, i. 6) does not affirm that for the *βίος τέλειος* happiness must extend over the whole of life, but only that the duration

of the period over which it extends is not a matter of indifference.] H. Siebeck—Zur Psychologie der Scholastik. [On the influence of Avicenna, in the experiential direction, on mediæval psychology.] L. Rabus—Zur Synderesis der Scholastiker. [That the Scholastic term "synderesis," usually identified with *συνείσθεσις*, is really derived from *συναίσις*.] J. v. Pflugk-Harttung—Paläographische Bemerkungen zu Kants nachgelassener Handschrift. W. Dilthey—Zu Goethes Philosophie der Natur. [On the community between Goethe's æsthetic pantheism and Herder's.] H. Höffding—Die Philosophie in Dänemark im 19. Jahrhundert. F. Puglia—Se un processo evolutivo si osservi nella storia dei sistemi filosofici italiani. [The author seeks to demonstrate a continuous evolution of Italian thought from the Pythagoreans and Eleatics to the moderns; different stages of the evolution being represented by the Stoics and Epicureans, the Roman jurists, the philosophers of the Renaissance, and Vico. Scholasticism and the philosophy of the earlier part of the present century (Rosmini, Gioberti, &c.) represent a direction foreign to Italian thought. "The tradition of Italian philosophical culture in the Middle Age is represented by law or, better, by juridical philosophy." Native Italian thought tends in philosophy to a naturalistic monism, and alike in the sciences of physical and human nature to experimental and inductive methods.] Jahresbericht (H. Diels, E. Zeller, B. Erdmann, C. B. Spruyt, F. Tocco). Neueste Erscheinungen.

PHILOSOPHISCHES JAHRBUCH.—Jahrgang i., Heft 1. C. Gutberlet—Die Aufgabe der Christlichen Philosophie in der Gegenwart. [Amidst the confusion of philosophical schools, Catholic philosophy at least is in no doubt as to what speculative direction to strike into. "It needs only to join on to the tradition of the fore-time, to take up again the connexion, for a time violently broken off, with the genuinely Christian and only absolute and true speculation," viz., the philosophy built up on an Aristotelian foundation by the Christian Scholastics.] J. A. Endres—Des Alexander von Hales Leben und psychologische Lehre (i.). J. Pohle—Ueber die objective Bedeutung des unendlich Kleinen als der philos. Grundlage der Differentialrechnung. [An attempt to prove on philosophical grounds that the conception of infinitesimals is not a mere "mathematical fiction," but corresponds to "an intelligible reality".] J. Pohle—Zur Statistik der philosophischen Weltliteratur des Jahres, 1887. Recensionen u. Referate (H. Spencer, *Die Principien der Sociologie*, &c.). Zeitschriftenschau, &c. Heft 2. C. Gutberlet—Die Psychologie ohne Seele. Kadeřávek—Vom Ursprung unserer Begriffe (i.). J. A. Endres—Des Alexander von Hales, &c. (ii.). Recensionen, &c. Miscellen u. Nachrichten (Nekrologe über Carl Werner und Matthew Arnold). Heft 3. J. A. Endres—Des Alexander von Hales, &c. (Schluss). [This series of articles consists of a biography of Alexander of Hales, followed by an exposition of his doctrine of the soul, copiously illustrated by citations.] G. Grupp—Die Anfangsentwicklung der geistigen Cultur des Menschen (i.). [The first part of an article intended to exhibit the essential differences of man from the lower animals.] Kadeřávek—Vom Ursprung unserer Begriffe (Schluss). [The systems of "ideæ innatæ," of "Materialism, Sensualism and intellectual Empiricism," of "Traditionalism" and of "Ontologism" (examined in the author's first article) all "contain something true," but in a one-sided manner. The fundamentally true doctrine of the origin of our conceptions is "the abstraction-theory of Aristotle and the Scholastics".] Recensionen, &c.